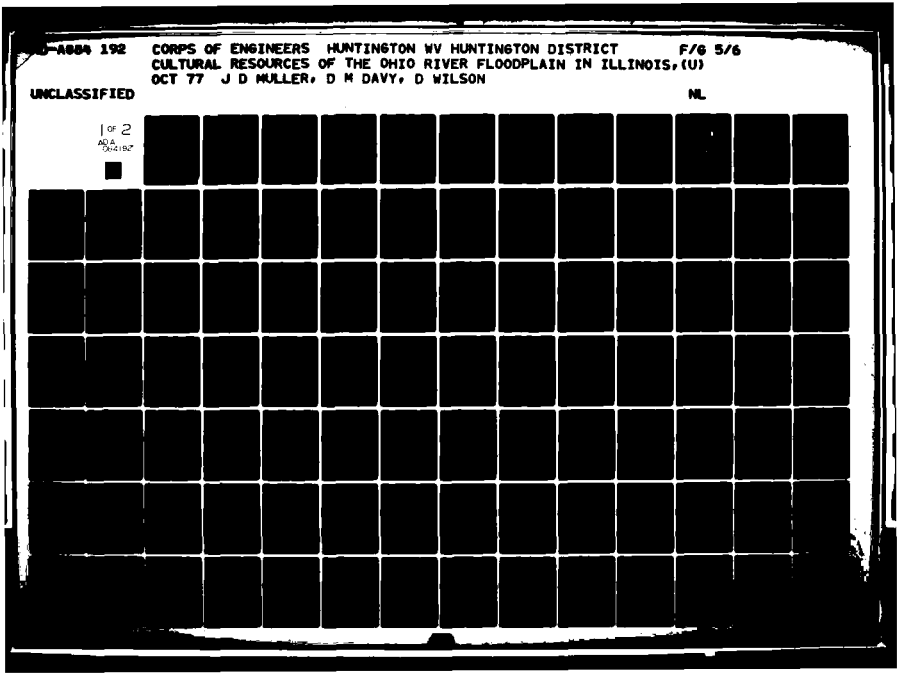

CULTURAL RESOURCES OF THE OHIO RIVER FLOODPLAIN IN ILLINOIS

Prepared By:

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Huntington District
Corps of Engineers
Request No. DACW 69-77-Q-0053

October 15, 1977

ERRATA

Cultural Resources of the Ohio River Floodplain in Illinois

p. 24 - second paragraph, "the 2SD2-06 site" should read 25D2-06

p. 72 - 26 VI 75-6 through 26 VI 75-14 (last nine entries) should read 27 VI 75-5, 27 VI 75-6, etc.

p. 73 - 26 VI 75-15 through 26 VI 75-21 (first 7 entries) should read 27 VI 75-15, 27 VI 75-16, etc.

p. 74 - 29 VI 75-1 through 29 VI 75-9 (last nine entries) should read 29 VI 73-1, 29 VI 73-2, etc.

p. 75 - 29 VI 75-10 through 29 VI 75-B (first eight entries) should read 29 VI 73-10, 29 VI 73-11, etc.

- 27 VI 75-12 through 26 VI 75-14 should read 27 VI 73-12, 13, 14

- 23 VI 75-1 through 26 VI 75-7 (last nine entries) should read 23 VI 72-1, 23 VI 72-2, etc.

p. 76 - 26 VI 73-8, 26 VI 73-9 should read 26 VI 72-8, 26 VI 72-9

p. 77 - 27 VI 72-19 should read 27 VI 73-19

- 28 VI 72-21 should read 27 VI 73-21

p. 78 - 23 VI 73-6 should read 25 VI 73-6

- 23 VI 73-8 should read 25 VI 73-8

- 10 VI 69 should read 10 V 69

- 26 VI 72-3 should read 26 VI 73-3

- 22 VI 72-7 should be deleted

p. 79 - 24C4-02 should read 25C4-02, 24C4-06 should read 25C4-06

p. 80 - 24C4-54 should read 25C4-54, 24C4-04 should read 25-C4-04

p. 98 - 21 VI 73-T1 should read 23 VI 71-T1

p. 100 - 24C4-48 (repeated 5 times) should read 25C4-48

- 15 VI 75-3 through 15 VI 75-7 should read 15 VI 71-3 through 7

Errata - 2

p. 101 - 24C4-38 should read 25C4-38

- BBMx-187 should read BBMx-189

- 29 VI 72-3 should read 29 IV 72-3

- 29 VI 72-5 should read 29 IV 72-5

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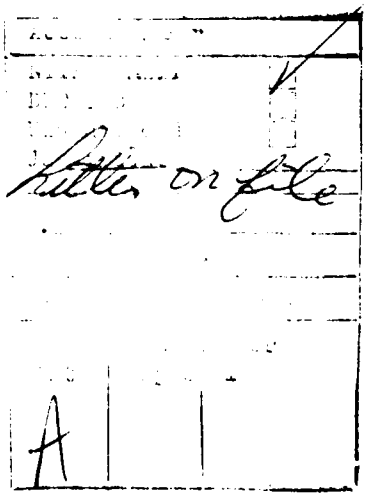

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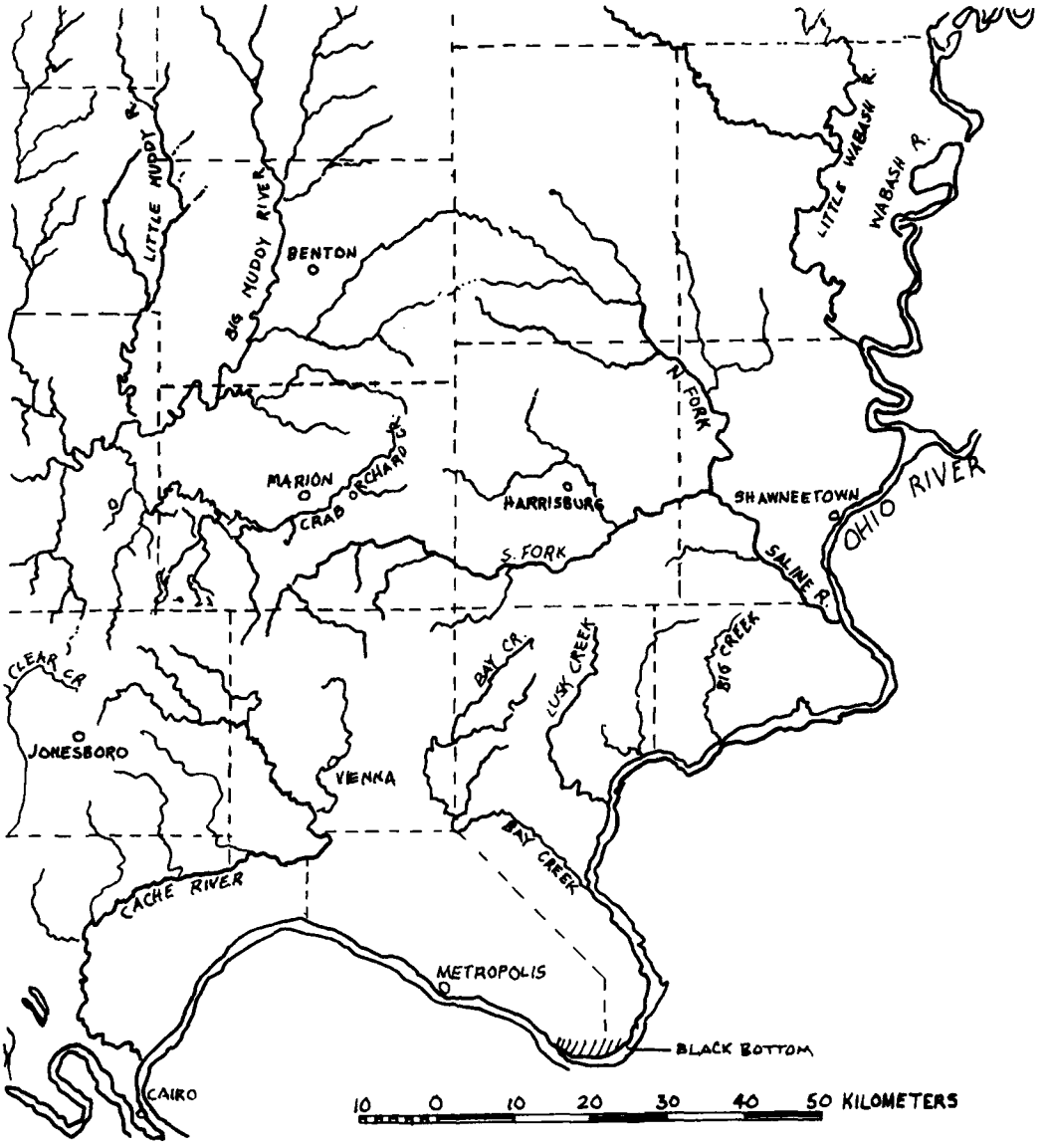

Frontispiece. Southern Illinois and the lower Ohio Valley

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ARCHAEOLOGICAL RESOURCES OF THE OHIO RIVER VALLEY IN ILLINOIS

Study Methods

The archaeological cultural resources of the Illinois portion of the Ohio Valley were determined by examination of site file data from three sources. The major site file record for the area is that of the Illinois Archaeological Survey, Inc. (IAS). Duplicates of this file were located at the Southern Illinois University Museum at Carbondale, Illinois. The site files of the Southern Illinois University Museum (SIUM) contain cross-listing of much of the IAS file and some additional site location information. The third site file is located in the Southern Illinois University Department of Anthropology (SIUDA) and consists of recent survey data from the Black Bottom locality of the Ohio River (river miles 910-937) which have not yet been reported to the Illinois Archaeological Survey.

Access to the Illinois Archaeological Survey site files is restricted, and site locations are therefore given by five river-mile sections as approved by the IAS. Sites were recorded on maps; and site density was determined in terms of cultural affiliation, elevation, soil type, meters from river bank, and vegetation cover as reconstructed from soils and Northwest Territory survey data. Condition of the site, size of site, and depth were recorded where such information was available. In addition, National Register status and location of site records are also given in the site listings (Appendix A).

There are a number of different site numbering systems employed in project area. From 1934 to the middle 1940's, a numbering system employed by the University of Chicago designated sites by a county code, a superscript letter and number (e.g., Mx^{V}-1 is a village site in Massac County). All of the sites recorded in the University of Chicago survey work have been renumbered in the Illinois Archaeological Survey files. Thus University of Chicago (UC) sites Mx^{V}-1 to 22 were designated by the IAS as Mx-1 (the Kincaid Site). The same site area is 25D3-3 in the SIU University Museum records. The University Museum system is based on United States Geological Survey 15 minute quadrangle sheets. A few sites listed in the Southern Illinois University Museum files have not yet been assigned IAS numbers.

The survey of the Southern Illinois University Department of Anthropology Field School in Archaeology has located the bulk of the

sites in the study area. This survey area is confined to the "Black Bottom" area adjacent to the Tennessee and Cumberland confluences with the Ohio River and to the mouth of Bay Creek. Site numbers used by the SIU Field School consist of a two-part map check number. This consists of the date of survey, expressed as the numerical day, the month in Roman numerals, and the last two digits of the year of survey, followed by a sequential map check number (e.g., 29 VI 75-3 is the third site discovered on 29 June 1975). Field numbers of the SIU Field School were also assigned for many of the sites for reference purposes. Thus BB Mx-145 represents the 45th site discovered in Massac County by the Black Bottom survey. Both numbers are included in the accompanying table (Appendix A).

Publications of the University of Chicago generally use the University of Chicago site numbers, those of the Southern Illinois University Museum most often use SIUM numbers, and publications of the data recorded by the Southern Illinois University Field School in Archaeology refer to IAS numbers where possible and otherwise refer to SIUDA numbers.

Universal Transverse Mercator grid numbers are supplied in groups for each sector of five river miles. A military grid reference for any 1,000 meter square which occurs entirely or partly within a kilometer of the Ohio River bank is given. The military reference grid zone for the entire project area is 16S; and 100,000 meter squares include DS, CS, and DR. The 1,000 meter square is listed after the 100,000 meter square designation as a four-digit number (Department of the Army Technical Bulletin TM 5-241-1, 1967). Thus the military grid reference 16SDS 0884 refers to a square kilometer 408,000 meters east and 4,184,000 meters north in grid zone 16S and located in 100,000 meter square DS.

Description of the Study Area in Illinois

The study area in Illinois includes portions of two major physiographic provinces: the Interior Low Plateaus Province and the Gulf Coastal Plain Province, ~~(Leighton,~~ Ekblaw, and Hornberg 1948). The Shawnee Hills section of the Interior Low Plateaus Province extends from the mouth of the Wabash River to Bay Creek (river miles 848-908). There are two sections of the Gulf Coastal Plain Province in the project area. The Mississippi Plateau section of this province extends from Bay Creek to the mouth of the Tennessee River (river miles 909-934), and the Mississippi Embayment section of the same province extends from the Tennessee River to the mouth of the Ohio at the Mississippi River (river miles 935-981).

Geologically, the Interior Low Plateaus Province in the study area consists of loess-covered hills underlain by Mississippian and Pennsylvanian system strata of varied lithology. These strata outcrop in the more northern portions of the area, forming a cuesta near the

Shawneetown Hills which stretches westward across southern Illinois. These deposits are fairly resistant, and the Ohio River has cut a narrow flood plain in this section. The more southerly Gulf Coastal Plain Province is mainly unconsolidated late Cretaceous and early Tertiary sediment which overlays the Pennsylvanian and Mississippian strata at the southern tip of Illinois. These Cretaceous and Tertiary sediments are in turn overlain by Pleistocene deposits including sands and gravels from glacial outwash. The topography of the Gulf Coastal Plain is mostly of low relief and is less resistant to erosion so that flood plains in this section are broader, though still narrow in comparison to the Mississippi Valley.

Climate in the area has been classed variously as Humid Subtropical or Humid Continental (Strahler 1967). Summers are warm and humid, winters cool. The mean annual temperature varies from 13.8 degrees to 14.4 degrees Celsius (57-58 degrees Fahrenheit), from the northern to the southern portion of the area (Hall 1940). Precipitation is fairly evenly distributed throughout the year. The mean annual precipitation varies between 102 and 114 centimeters (40-45 inches). The length of the growing season varies from 90-120 days.

Soils that have developed under rich mesophytic forest, known as melanized forest soils, find their northwestern limit in the study area. However, Western Mesophytic Forest is the predominant forest type of the study area and is a transition forest type between the Mixed Mesophytic areas to the east and south and the Oak-Hickory Forest further to the west and south (Braun 1967).

Upland and terrace vegetation of the Gulf Coastal Plain Province in the study area differs somewhat from that of the Interior Low Plateaus Province, though lowland vegetation types are the same for the two areas (figures 1 and 2). Due largely to soil and drainage conditions and to the lack of deeper sheltering ravines, vegetation in the Gulf Coastal Plain has a more xeric aspect; and timber is generally smaller.

Upland Vegetation Types

A Post Oak Flats or wet flats community, is found on terraces and flat uplands of the Gulf Coastal Plain. Post oak (Quercus stellata) is the dominant of this community, often accompanied by blackjack oak (Quercus marilandica), black oak (Quercus velutina), shingle oak (Quercus imbricaria), and various hickories, particularly the more xeric species such as black hickory (Carya texana). Though post oak and blackjack oak are found most often on xeric ledges and bluff tops in the uplands of the Interior Low Plateaus Province, soil and water conditions in the Gulf Coastal Plain Province are such that soil is alternately saturated and very dry (Engelmann 1883, 1866a, 1866b); and these conditions are tolerated by post oak. Post Oak Flats often contain pockets where water does collect for longer periods and which

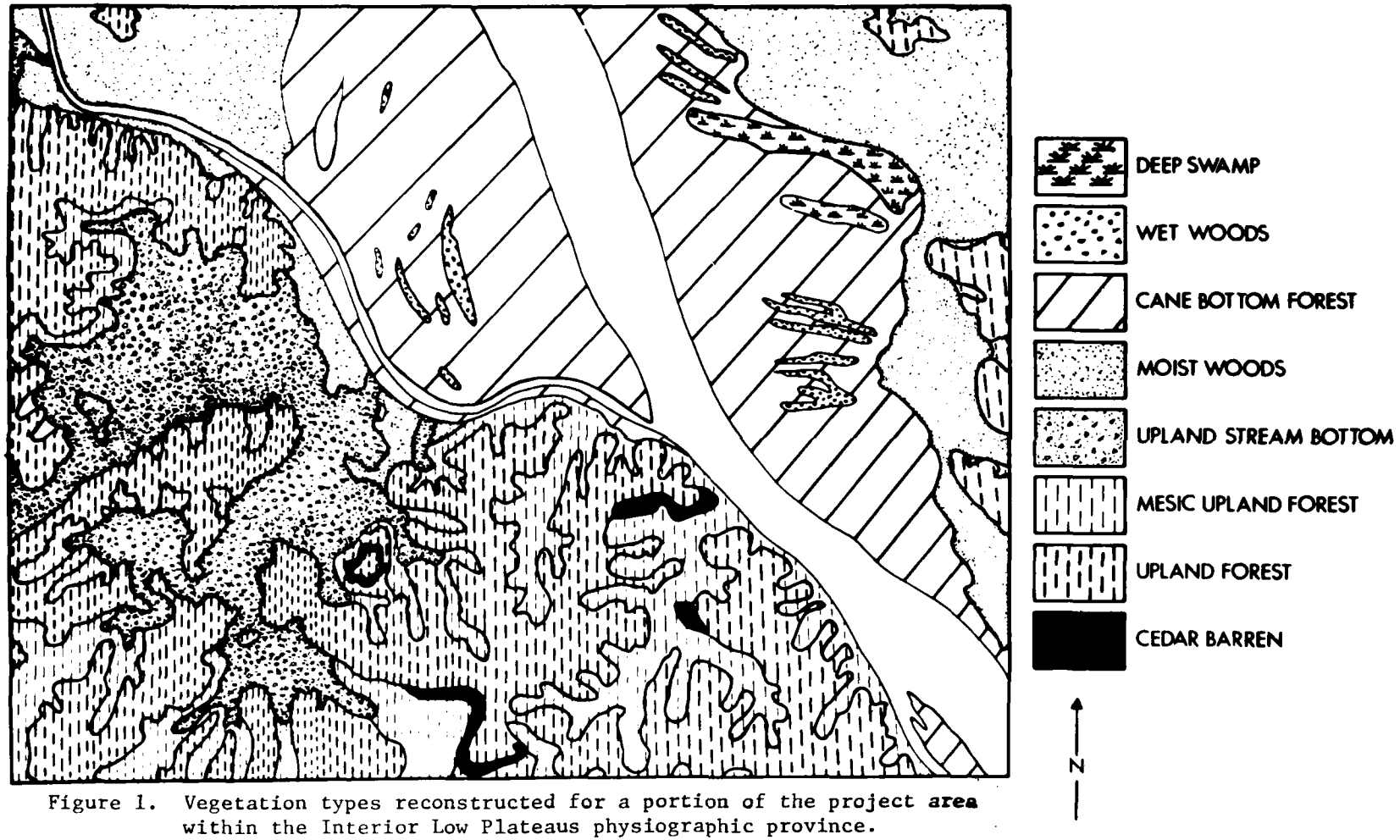

Figure 1. Vegetation types reconstructed for a portion of the project area within the Interior Low Plateaus physiographic province.

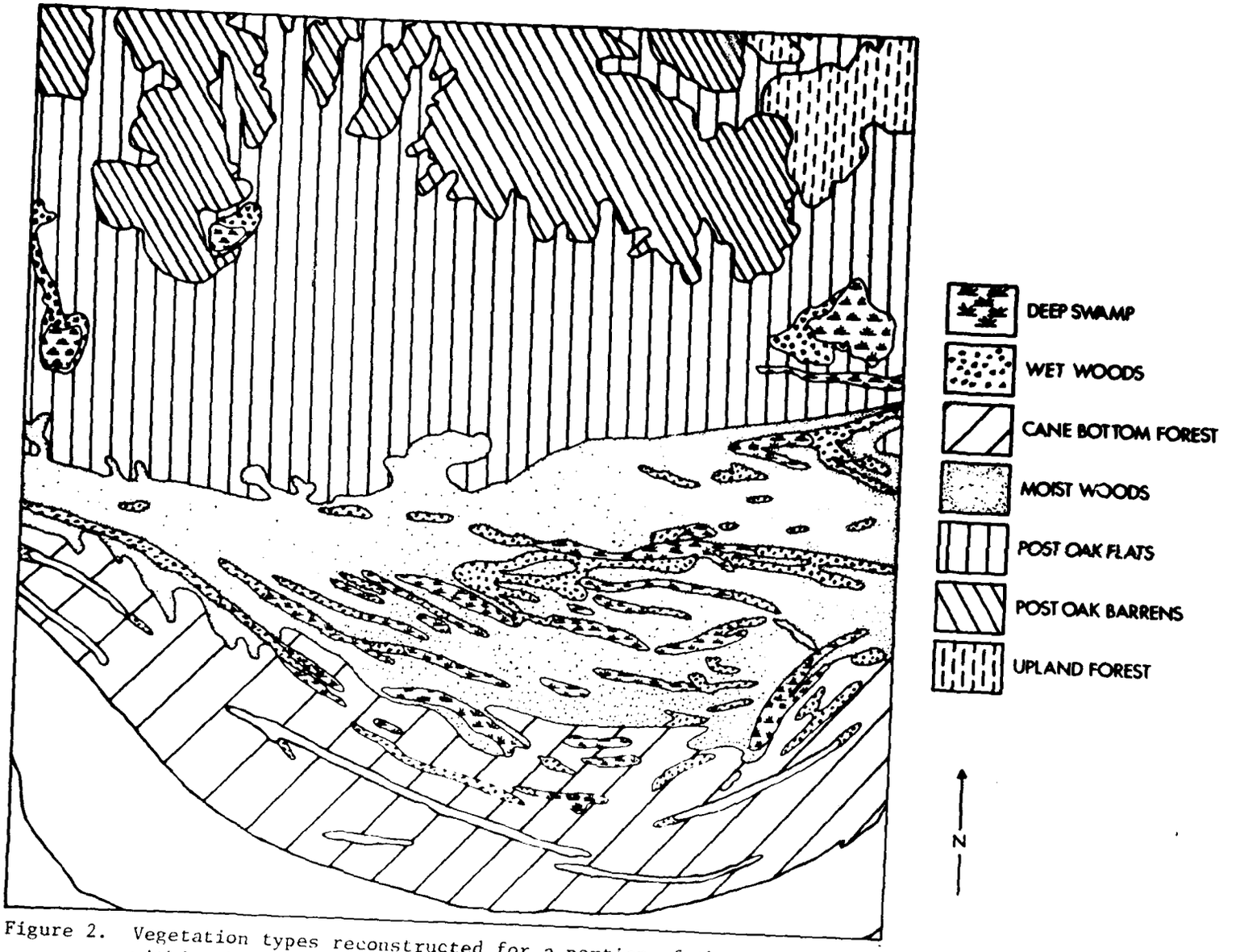

Figure 2. Vegetation types reconstructed for a portion of the project area within the Gulf Coastal Plain physiographic province.

support stands of pin oak (Quercus palustris), elm (Ulmus), ash (Fraxinus), and other species.

Portions of the low hills of the Gulf Coastal Plain Province support a vegetation type known as Post Oak Barrens (Butler 1972). While these areas have largely returned to a variant of upland or oak-hickory forest under the influence of the plow, records of the General Land Office Survey (U. S. Government Land Surveys n.d.) show conclusively that these areas, particularly in Pope County south of Bay Creek, were originally covered with a prairie-like vegetation, interspersed with post oak, blackjack oak, and hickories, in varying density. Surveyors also noted brushy areas in some places.

In the Interior Low Plateaus Province, Post Oak Flats and Post Oak Barrens do not generally occur. The uplands of this section are characterized mainly by three forest types called here Upland Forest, Mesic Upland Forest, and Cedar Barrens.[1] Each of these types may occur in small pockets in the Gulf Coastal Plain but not in quantity.

The Upland Forest vegetation type is the plant community occurring mainly on ridgetops and higher slopes in the Shawnee Hills Section of the Interior Low Plateaus Province. Dominants in this habitat are mostly white oak (Quercus alba) and black oak (Quercus velutina), with pockets of post oak and blackjack oak where soil is thin or exposure hazardous. Stands of various hickories (Carya) are interspersed. Smaller trees might include dogwood (Cornus spp.) and redbud (Cercis canadensis). Understory species include farkleberry (Vaccinium arboreum) and shadbush (Amelanchier arborea), or fragrant sumac (Rhus aromatica) in dryer areas or Hercules club (Aralia spinosa) and cat-briar (Smilax bona-nox) elsewhere.

Moving down the steep ravine slopes, there is a gradual transition to the most mesic and protected conditions of the ravine bottom; and this lower slope and moist ravine environment harbors a plant community here called Mesic Upland Forest. The most mesic species, dominating the protected north and east-facing slopes and protected bottoms, are sugar maple (Acer saccharum) and beech (Fagus grandifolia), often accompanied by tulip tree (Liriodendron tulipifera) and bitternut hickory (Carya cordiformis). Where protection is less due to factors of slope angle or to south and west aspect, there is often no clear dominant but a mixture of red oak (Quercus rubra), white oak, various hickories, American ash (Fraxinus americana), slippery elm (Ulmus rubra), and other trees. In the understory, poison ivy (Rhus radicans) is in evidence, accompanied by spicebush (Lindera benzoin),

[1]Descriptions of vegetation types are based on Voigt and Mohlenbrock (1967), Mohlenbrock and Voigt (1959), and various master's degree theses on the botany of southern Illinois such as Cerretti (1975), Huston (1974), and others.

paw-paw (Asimina triloba), virginia creeper (Parthenocissus quinquefolia), blue beech (Carpinus caroliniana), and other plants.

Where sandstone ledges outcrop on slopes or blufftops, a Cedar Barrens community occurs. It is dominated by red cedar (Juniperus virginiana), accompanied by post oak and blackjack oak or black hickory where some soil has accumulated. Winged elm and farkleberry often compose the sparse understory.

Lowland Vegetation Types

While upland vegetation communities are determined by factors such as protection and soil depth, the lowland communities, which are the same throughout the study area, are determined more by water conditions. Lowland communities discussed here include Swamp, Wet Woods, Moist Woods, Cane Bottom Forest, and Upland Stream Bottom.

Swamp communities occur on bottomlands of the Ohio River where water stands year around due to annual flooding. Deeper swamps are dominated by bald cypress (Taxodium distichum) and water tupelo (Nyssa aquatica), with some swamp cottonwood (Populus heterophylla), water hickory (Carya aquatica), and pumpkin ash (Fraxinus tomentosa). Swamp rose (Rosa palustris) and buttonbush (Cephalanthus occidentalis) inhabit the understory. In shallower areas, or where the swamp is dry for some part of the year, water tupelo is replaced as a dominant by pumpkin ash; and virginia willow (Itea virginica) appears in the understory.

In low areas of the broader Ohio River bottomlands, or in depressed terrace flats where water stands for a month or more, a Wet Woods community occurs. It is dominated by pin oak, which often occurs in nearly pure stands. Associated trees here are often cherry-bark oak (Quercus falcata var. pagodaefolia), sweet gum (Liquidambar styraciflua), red maple (Acer rubrum), southern red oak (Quercus shumardii), with elms and ashes. Poison ivy and trumpet creeper (Campsis radicans) occur in the understory.

In a few areas where the Ohio River annually overflows its banks spreading alluvium, the Cane Bottom Forest community is found. This community was characterized before modern agriculture by dense stands of cane (Arundinaria gigantea). Associated tree species are mainly the "soft-hardwoods" including sycamore (Platanus occidentalis), red maple, honey locust (Gleditsia triacanthos), box elder (Acer negundo), American elm (Ulmus americana), hickories, and sweet gum, with occasional black walnut (Juglans nigra), butternut (Juglans cinerea), and pecan (Carya illinoensis) on better drained portions of ridges. Hackberry (Celtis laevigata) frequently occurs in the understory. Soils of this community are given an annual "energy subsidy" by flooding and hence are the richest and most suitable

for agriculture of any in the study area. Proximity of such areas to swamps and Wet Woods resource areas and the general desirability of this zone as habitat for important plant and animal resources meant that it was heavily occupied in all prehistoric periods. The largest such locality in the study area is the "Black Bottom" area.

On the deep, alluvial, bottomland soils that are not annually renewed by flooding, a Moist Woods community occurs. Better drained ridges of this community resemble Mesic Upland Forest, with some beech and sugar maple, basswood (Tilia americana), red oak, sweet gum, white oak, bur oak (Quercus macrocarpa), yellow chestnut oak (Quercus muhlenbergii), bitternut hickory, and small-fruited hickory (Carya ovalis). The understory generally contains blue beech, paw-paw, dogwood, spicebush, virginia creeper, poison ivy, and some fern species. Smaller ridges would be similar without many beech, basswood, or ferns. In the swale areas, water tolerant trees such as cherrybark oak, sweet gum, pin oak, and swamp chestnut oak (Quercus michauxii), would be more frequent; and the mesic species such as beech, sugar maple, and basswood would again be absent.

In the floodplains of small streams, the transition from overflow bottom to mesic forest is made within a much shorter space than along the Ohio River bottoms. The plant community defined by this transition is here called Upland Stream Bottom. Stream-bank species include mostly black willow (Salix nigra), cottonwood (Populus deltoides), sycamore, honey locust, river birch (Betula nigra), or soft maple (Acer saccharinum). Otherwise, there is essentially a transition through most of the species mentioned in discussions of Cane Bottom Forest and Moist Woods to the Mesic Upland Forest type of the lower slopes.

Reconstruction of the Vegetation Zones

The early historic vegetation of the lower Ohio River Valley was reconstructed using several sources. A major source was Butler's (1972) reconstruction of the vegetation of the Black Bottom locality. Butler researched the field notes of the field surveyors of the General Land Office Survey, which was carried out in 1806, to discover the correspondence between surveyors' "witness trees" and "line trees" and soil types. This was in turn checked against modern botanical sources such as Mohlenbrock and Voigt's (1959) flora of southern Illinois and various reports of early investigators such as Henry Engelmann (1863, 1866a, 1866b) and Clarence Telford.

In adopting Butler's methods to expand the reconstruction to the entire Ohio River Valley, several techniques were used. To obtain boundary definitions sharp enough for classification of archaeological sites as to environmental zone, soil maps were consulted for Alexander and Pulaski counties (Parks and Fehrenbacher 1968), Pope, Hardin, and

Massac counties (Parks 1975), and Gallatin County (Wallace and Fehrenbacher 1969) to secure information on soil permeability and depth. As topography was determined to be a major determinant of vegetation zones in the upland areas of the Shawnee Hills (Cerretti 1975), aerial photographs of the study area were inspected with a stereo viewer so that factors of slope, drainage, and protection could be determined more accurately. Finally, the General Land Office Survey notes (U. S. Government Land Surveys n.d.) were consulted; and the witness trees, line trees, and comments on vegetation and topography were noted on maps. Using all these sources, vegetation boundaries were drawn and sites located in terms of environmental zones.

Tree-ring studies (Hawley 1941; Estes 1969) suggest that relatively little major climatic change has occurred since Late Prehistoric times. Although the accuracy of actual tree-ring dates in the area can be questioned, a general conclusion of relative climatic stability seems justified. However, the usefulness and accuracy of any extension of this vegetation reconstruction to earlier times is uncertain. In general, historic vegetation zones and settlement even for earlier times do seem to be consistent.

Results of the Reconstruction

Archaeological sites were related to vegetation zones on the basis of the reconstruction (see Table 1). Cane Bottom Forest showed the highest relationship with archaeological sites for all periods. The percentage of sites in Cane Bottom Forest is very high for Mississippian, Late Woodland, and Early and Middle Woodland period sites and much lower for Archaic period sites and sites of undefined period, though still high. The difference here may partly be due to disappearance by alluviation in this zone of Archaic sites. Sites of unknown period affiliation are probably mostly lithic sites, since ceramics is generally a good indicator of period. Hence many of these sites (coded NPA for no period assigned) may represent either Archaic sites or hunting camps during later periods, rather than actual long-term settlements. Cane Bottom Forest represents a very fertile, somewhat easily cleared zone -- often with adjacent sloughs and swamps which provide abundant resources. Waterfowl, fish, and nut resources are also readily available near this zone; and so it is no surprise that it was heavily occupied in most prehistoric periods. The relationship between Cane Bottom Forest and soil types such as Armiesburg silty clay loam (597) [sometimes called Allison silty clay loam (306) in earlier soil surveys] and Huntington silty clay loam (600) is fairly consistent.

By far the second highest percentage of archaeological sites in the study area for all periods falls within the Moist Woods environment. Probably more of the area within a kilometer of the Ohio river bank in Illinois consists of this environment than of Cane Bottom

Table 1. Sites on the Project Area by Period per Environmental Zone

		CBF	MW	MUF	POF	USB	WW	UF	POB	TOTAL
HI	%	100.00								1.03
	#	(4)								(4)
MISS	%	77.24	19.31	1.38	1.38		0.69			37.18
	#	(112)	(28)	(2)	(2)		(1)			(145)
LW	%	81.08	13.51	5.41						9.49
	#	(30)	(5)	(2)						(37)
E/MW	%	74.19	22.58	3.23						7.95
	#	(23)	(7)	(1)						(31)
A	%	47.73	36.36		13.64		2.27			11.28
	#	(21)	(16)		(6)		(1)			(44)
NPA	%	44.18	43.41	4.64	2.33	2.33	0.78	1.55	0.78	33.07
	#	(57)	(56)	(6)	(3)	(3)	(1)	(2)	(1)	(129)
TOTAL	%	63.33	28.72	2.82	2.82	0.77	0.77	0.51	0.26	100.00
	#	(247)	(112)	(11)	(11)	(3)	(3)	(2)	(1)	(390)

HI = Historic Indian
MISS = Mississippian
LW = Cane Woodland
E/MW = Early/Middle Woodland
A = Archaic
NPA = No Period Assigned

CBF = Cane Bottom Forest
MW = Moist Woods
MUF = Mesic Upland Forest
POF = Post Oak Flats

USB = Upland Stream Bottom
WW = Wet Woods
UF = Upland Forest
POB = Post Oak Barrens

Forest, and so the lesser degree of usage of Moist Woods areas by prehistoric peoples was probably the result of choice rather than chance. Soil types generally associated with this environment include Hurst silt loam (693) and Emma silt loam (469), soils of higher bottomland areas along the Ohio river, and some low terrace soils.

Sites occurred in Mesic Upland Forest and Post Oak Flats environments with equal frequency. Most of the Mesic Upland Forest localities for which sites were recorded were not, however, ravine bottom topographically but occurred in a large, somewhat sheltered area of rich soils along the Ohio River in Hardin County. This locality is near to fluorspar and salt resources and was the only upland area which showed any extensive prehistoric usage in the survey. Alford silt loam (308) is a soil type often associated with this zone.

The number of sites in Post Oak Flats was particularly high for the Archaic period, yet this may reflect a large concentration of Archaic sites near an outcropping of a low-grade chert resource in Massac County. The two Mississippian sites in this zone are terrace rather than upland sites. Post Oak Flats is most often associated with Hosmer silt loam (214).

As for other zones, three sites occurred in Upland Stream Bottom; and it is expected that this figure might have been higher had large areas of upland been involved in the survey. Wet Woods environments accounted for three more sites, possibly due to seasonal occupancy or to change in the topography and environment itself, a fairly likely possibility in flooded areas where such environments occur. Though probably more of the study area consists of Upland Forest than any other zone, only two sites were recorded in this zone, reflecting, no doubt, the preferences of prehistoric peoples or the difficulties of archaeological reconnaisance in such areas if still wooded (as they often are). One site occurred in a Post Oak Barrens zone, though in a locality very near to river bottom resources.

In summary, then, archaeological sites of all periods can be expected to occur in very high density in annually inundated areas where there is some high ground or ridge and swale topography (Cane Bottom). Sites can also be expected in high density in adjacent bottomland areas, with some high ground, that are not annually inundated (Moist Woods). This is substantiated by the very intensive surveying that has been carried out in the Black Bottom locality (river miles 922-936) as well as in surveys of the remainder of the project area which have not been as intensive. It is possible that occurrence of sites in higher densities in other environmental zones may be dependent more upon local availability of resources near these sites (chert, fluorspar, etc.), upon prehistoric trade routes, upon general environmental diversity in a given locale, or on other factors, though survey of such areas is not at present adequate to fully substantiate this conclusion.

Quality and Limitations of the Data

The major site surveys in the vicinity of the project area have been carried out since 1934, although some sites such as Kincaid were reported earlier. For most of the project area, the method of survey apparently was a procedure of informant interview and spot-checking of "likely looking areas." Field notes and published accounts from most site location work in the area give little indication of the procedures employed. Moreover, there is usually no way to determine which areas were investigated that did not have archaeological remains present. The lack of such information, unfortunately, is characteristic of almost all survey carried out in the eastern United States during the period prior to the 1970's. Thus, as poor as the data are on actual site distribution in the project area, these data are generally comparable to those from other regions.

Historically, the lack of explicit information on survey methods and purposes is a reflection of what appears to have been an attitude that site location survey was primarily useful as a technique for discovering sites (preferably stratified) for excavation. The distributional and environmental interests of British prehistorians have only recently been shared by their American counterparts. Survey methods reflecting these interests in distribution and environment have developed only recently in the area.

The "Black Bottom" section of the project area which is adjacent to the confluences of the Tennessee and Cumberland rivers with the Ohio (river miles 922-936) has been surveyed intensively with the aim of defining settlement systems and their environmental concommitants. Portions of this area have been surveyed over a period of ten years by members of the Southern Illinois University Department of Anthropology. The portion of the Black Bottom area within a kilometer of the Ohio River bank thus contains very little area that has not been surveyed. Most of these unsurveyed areas are located in lower ground which is subject to annual flooding and in which the density of sites of all periods is normally not large. It is not surprising, then, that upwards of twice the number of sites reported for the rest of the project area were found in the Black Bottom area alone. Although the Black Bottom section was a very desirable habitation area during every period of prehistory, survey in this area shows that the density of sites in the remainder of the project area is much higher than is now reflected by survey data for these other areas.

Site definition used in the SIU Department of Anthropology (SIUDA) Black Bottom survey also differs from site definition in previous surveys. Any two adjacent areas of scatter of cultural materials separated by at least 5 to 10 meters of ground on which no material was found were given separate map check numbers by members of the survey. If closely located sites appear to be of the same period, they may be given a single survey number (see Study Methods section for discussion of numbering systems). This contrasts to earlier

surveys in which numerous areas of scatter have at times been given a single site number if in the same general area. The Black Bottom survey thus defines the site as a unit small enough to account for successive or sporadic relocations of habitation within a prehistoric period. Such a definition of the site unit also makes possible the identification of domicile clusters within a settlement neighborhood or of smaller clusters when domiciles are widely spaced. The identification of such settlement features as these is especially significant in the Mississippi Period, when occupation of ridges on annually inundated bottomland is extensive. It is likely that many sites discovered by earlier surveys contain two or more sites as defined by the Black Bottom survey.

A second survey was carried out by Mr. Walter Brieschke of the Southern Illinois University Museum in 1971 for the Historic Sites Survey. This survey covered much of the project area. The method used in Brieschke's survey was to contact landowners to discover where artifacts or burials had been found (Walter Brieschke, personal communication). In many cases, sites were not visited due to vegetation or crop conditions. Local collections were catalogued and photographed, and sites were located on topographic maps according to the verbal descriptions of land owners supplemented by field checks.

The section of the project area from Brookport to Metropolis, Illinois (river miles 938-942), is the only area aside from those covered by the Black Bottom survey which has undergone intensive "on the ground" survey. This was accomplished as a part of the Southern Illinois University Museum Fort Massac Project (Lathrop and Grubisich 1970) and consists mainly of areas within Fort Massac State Park and its proposed extension eastwards towards Brookport. Areas within the park were difficult to survey as 75 to 80 per cent was covered by dense forest. Areas within the proposed eastward extension of the park were more amenable to survey since three-fifths of the land was cultivated. The remaining two-fifths contained forest, old fields, or pasture with dense grass and weeds. The Fort Massac survey project also depended on site information from area residents. A total of twenty-one sites was located by the survey, three of which had been previously recorded. Most of these were located within the project area.

Still other sites were located in surveys by the Southern Illinois University Museum in the 1950's by Howard Winters and others. Sites discovered in these surveys were few, and accounts of survey methods have not been published. Other sites in the project area have been located as a result of reports from collectors and landowners. Thus only the Black Bottom area (river miles 922-936), a section near Bay Creek (river mile group 909-912), an area in between these two (river mile group 913-917), and the locality near Fort Massac State Park (river mile group 938-942) have been surveyed in any sort of intensive way.

The earliest extensive survey in the project area was conducted by the Metropolis Expedition of the University of Chicago in the 1930's and 1940's. This survey concentrated on cultivated fields and made spot checks in widely dispersed areas in Pope and Massac counties, Illinois. Small sites were generally not recorded (Cole et al. 1951).

Data concerning site size, depth, cultures represented, and sometimes periods represented are limited by the survey file information. Size of site, for example, was not often recorded. If the site was located but not visited, information on periods, cultures, and site sizes was usually absent. Information on depth of cultural deposits is also rarely available since few sites have been excavated and even fewer tested.

Surface collections were made at most sites, however; and this provides a basis for the determination of site type, periods, and cultures. For example, the criterion for a village site for the Mississippian period was the occurence of daub, indicating the probable presence of a dwelling. Smaller sites with daub and/or hoe chips present were usually labelled as "farmsteads." In cases where such artifacts were not present, no designation as to type was made. Identification of culture period was made on the basis of diagnostic artifacts as described in the section on culture periods.

Assignment of culture for a particular site of known period was often problematic. For some periods (notably Late Woodland and Mississippian), diagnosis as to culture is difficult on the basis of surface collections alone because of similarities between designated cultures and phases. Furthermore, cultural boundaries cut across the study area during most periods. Due to the nature of the cultural units themselves, as well as the limitations of data from surface collecting, designation of sites in these areas as belonging to a specific culture was often not feasible. (For further discussion of cultural boundary problems in the study area, see the section on cultures and periods.)

Prehistoric Periods and Cultures

Prehistoric cultural periods in the lower Ohio Valley and their approximate dates are as follows:

1. Paleoindian -- 10,000-7000 B.C.
2. Archaic -- 7000-500 B.C.
3. Early/Middle Woodland -- 500 B.C.-A.D. 600
4. Late Woodland -- A.D. 600-900
5. Late Prehistoric (Mississippian) -- A.D. 900-ca. 1620

The Paleoindian Period

The three millenia of the Paleoindian period were times of

subtle ecological change in the woodlands environment of the eastern United States. The effects of the recession of the Wisconsin glaciation had probably all taken place sometime prior to 7000 B.C. A stable deciduous forest had developed; and big game species such as mammoth and large bison species, which were hunted by Paleoindian peoples in earlier times, had become extinct. These may have been important factors in the development of Paleoindian cultures.

Evidence from the few habitation sites known and the distribution of Clovis type projectile points are consistent with the view that the usual Paleoindian form of social organization was that of small groups of people moving about an area in response to local availability of resources. Population density during these times was probably very low.

The Paleoindian peoples of the lower Ohio Valley were very similar to their counterparts in other areas of northern America, at least in terms of lithic technology. Finds of Clovis type projectile points are not uncommon in southern Illinois, although actual kill sites or habitation areas have not been identified in the lower Ohio Valley. Such sites may have been buried by alluviation. Because of the lack of good evidence, it is difficult to determine the character of the Paleoindian use of the woodlands environment near the lower Ohio. It is also true that the Paleoindian period is generally the least known prehistoric period in eastern North America.

There are presently no named phases or cultures for this period in the Illinois portion of the Ohio Valley. However, the projectile points of the period are of the type known as Clovis (Wormington 1957:263); and it is common to speak of a "Clovis Culture."

Towards the end of the Paleoindian period, a cultural complex known as Dalton appeared in many areas of eastern North America (Goodyear 1974). The Dalton complex is similar to its Clovis predecessor in some ways and seems to have been a development from Clovis in response to changing environments. Dalton components show a broad range of utilization of resources and a particular emphasis on the hunting of deer. It is probable that a wide variety of plant foods were used as well. The Dalton culture is generally regarded as belonging to the transition time between the Paleoindian and Archaic periods. Finds of Dalton type projectile points (Bell 1958:18-19) are fairly common in Illinois. For other areas, various late Paleoindian and Early Archaic sites have been reported (Luchterhand 1970).

Diagnostic Paleoindian projectile points:

Clovis points (Wormington 1957:263
Meserve points (Wormington 1957:265)
Dalton points (Bell 1958:18-19)

The Archaic Period

One of the outstanding characteristics of the Archaic period is that Archaic people skillfully adapted to a broad range of local conditions. There are often considerable differences in Archaic period societies from one locality and region to another (see, for example, Muller, in press c; Caldwell 1958). In most cases, however, the basic strategies employed by Archaic peoples appear to have been similar despite the differences in technique and custom required in particular locations. The most common pattern of life in this period appears to have been seasonal movement from one part of the home range of a band to another depending upon the fruits, nuts, fish, shellfish, and game available. There is also evidence of a varied settlement strategy during Archaic times. Winters (1969), for example, has hypothesized that Archaic settlement sites on the nearby Wabash Valley are of several types including winter settlement sites, with semi-permanent dwellings and burial grounds; large spring and fall transient camps; summer hunting base camps; and smaller hunting camps and bivouacs occupied during any given season. This kind of settlement system is fairly typical of modern hunting and gathering bands. Though evidence of settlement during the preceding Paleoindian period is scant, this pattern of settlement or one similar may have occurred in Paleoindian times as well.

A wide range of plant and animal species were used as food by Archaic peoples. Seasonal movement to make use of several resource zones and to take advantage of local variability of resources was probably a very important factor in survival. The nut-bearing trees which are abundant in the lower Ohio River valley, for example, are known to undergo cycles of productivity from area to area. Animal resources are also subject to population cycles due to the pressure of both animal and human predation. In some Archaic sites, domesticated squash is present (Chomko and Crawford 1977; Yarnell 1976:269); but the importance of such plants to the economy is undetermined.

As population increased through Archaic times, there was a corresponding decrease in the mobility of Archaic peoples due to increasing pressure from neighboring groups and to more competition with them for resources. Under these circumstances, there was also pressure to increase the efficiency of exchange and distribution of goods and to improve storage systems so that the produce of one season could be carried over to the next season. In general, there was probably greater pressure to raise productivity. Such changes, but particularly the increasing need to improve the efficiency of distribution and exchange of goods from one resource zone to another, may have led to a greater need for the organization and administration of activities. The higher quality and greater quantities of grave goods associated with a few Late Archaic burials are evidence that there were increasing differences of status in some Archaic societies (Binford 1962:223-24). It is probably not the case, however, that these more highly politicized Late Archaic societies were hereditary chiefdoms in Elman R. Service's (1975) widely used classification

of political types. A more likely interpretation is that such societies were of the "Big Man" type, in which leadership arises to meet local needs, usually in terms of the leader's ability to negotiate resources for the benefit of his community (cf. Braun 1977; Sahlins 1970).

Long-distance trade in exotic items began to occur in the later Archaic, possibly in connection with trade of food resources, increased population density, and restriction of group movement. Objects such as native copper from Michigan and Georgia and marine shell from the Gulf and Atlantic coasts began to turn up in small quantities far from their source areas.

Increased need for storage in containers more durable than baskets and the diffusion of ceramic techniques led some Archaic peoples to the south to adopt pottery making. Since the earliest pottery-making cultures of the southern Atlantic coast and Mississippi River delta region were familiar with the making of vessels of durable steatite, it is probable that the adoption of pottery reflects the need for suitable containers more than anything else. The earliest pottery was fiber tempered and mostly undecorated (e.g., Waring, 1968). Later wares were sand or grit tempered and showed the beginnings of a tradition of ceramic decoration which lasted throughout North American prehistory. Despite these developments, however, pottery was probably not introduced into the lower Ohio Valley before Middle Woodland times (see discussion on Early Woodland period).

Archaic sites occur in fairly large numbers in the project area. Their location is more often on terraces than on bottomlands, yet this may reflect an obscuration of some bottomland sites due to alluviation or destruction due to change in stream courses. However, only a few systematic studies of Archaic sites have been undertaken in the project area (MacNeish 1948; Cole et al. 1951).

Faulkner is the only phase defined for the Archaic in the Illinois portion of the Ohio Valley (MacNeish 1948; Cole et al. 1951). It appears to date to the Middle Archaic. Other complexes during this very long period of time are defined for adjacent areas, however; and it seems likely that Archaic chronology can be considerably refined in the project area. While the use of the term "Faulkner" is justified for materials that are truly similar to those of the Faulkner site, there appears to have been a somewhat less acceptable trend toward using the term as a synonym for "Archaic." The Faulkner phase material tends to be more similar to that of cultures southeast of the lower Ohio Valley, particularly those of the Tennessee and Cumberland river valleys (Winters 1963). Close similarity of Faulkner to the Early Woodland Black Sand phase of the Illinois River valley to the north has, however, been noted (Cole et al. 1951). In most periods, cultural phases of the lower Ohio River valley, except those near the Wabash River mouth, are generally more similar to cultures south and east than to those of the Mississippi River floodplain or the northern side of the Shawnee Hills cuesta.

Diagnostic artifacts for the Archaic period are usually projectile points and knives of various types. It should be emphasized, however, that the mere finding of a particular type in an area does not justify a conclusion that a given cultural complex defined elsewhere is present in the area. Archaic projectile points are generally large in size and have been classified in a bewildering array of named types. For the lower Ohio in Illinois, only the Faulkner projectile point types (Cole et al. 1951:214-17) have been reasonably well connected with actual cultural contexts. However, many different kinds of Archaic projectile points have been found in the Ohio Valley and can be used with caution to identify Archaic sites. Among the most important of these in the Illinois part of the project area are the Karnak and Thebes (Winters 1967:23-25, 19). In addition to projectile points, other diagnostic artifacts include three-quarter grooved axes and so-called "bannerstones" (Fowler 1957b).

Diagnostic Archaic projectile points:

Karnak stemmed (Winters 1967:23-25)
Thebes point (Winters 1967:19)
Faulkner side notched (Winters 1967:23)

The Early Woodland Period

Earlier theories of change in society and culture in the eastern United States once stressed the role of diffusion of an agricultural complex of maize, beans, and squash and of moundbuilding from a Mesoamerican center in Early or Middle Woodland times (e.g., Griffin 1967: 175). However, maize simply does not seem to have been an exceptionally important food item at this early period. While domesticated squash appears to have been used well back into the Archaic period, maize did not begin to show up in small quantities until roughly 300 B.C. (Yarnell 1967); and beans have not been definitely identified prior to the Late Prehistoric (Yarnell 1976:272). It should be stressed that these highly productive crops are of Mesoamerican origin and that it may have taken a fairly long period of time for the development of varieties hardy enough to grow well in eastern North America.

Faced with the lack of evidence for intensive growing of Mesoamerican crops, some archaeologists have suggested that native crops may have been domesticated in eastern North America in Archaic (Yarnell 1976:269), in Early or Middle Woodland times (Streuver 1964). The most likely candidates for such crops are sunflower (Helianthus), goosefoot (Chenopodium), and sumpweed (Iva) (Streuver, 1964; Yarnell, 1976:266-70). Even if these plants were not fully domesticated, their use at this time may have been a factor in increasing sedentarism.

The Early Woodland period marks the spread of ceramic technology to most of eastern North America, if not to the project area. The occurrence of pottery has often been cited as a major marker for the

Early Woodland period, usually on the assumption that a major economic change was involved as well. However, some authors (e.g., Willey and Phillips 1958) have noted that Late Archaic and Early Woodland cultures which have ceramics differ very little from their immediate predecessors in other respects. Despite this, the term "formative" is sometimes used to refer to the possible shift to small-scale plant cultivation in the Early Woodland period. Even so, formative cultures occur in very few areas in Early Woodland times, most notably in Louisiana (Poverty Point) and in Ohio. The presence of ceramics, then, is in and of itself more indicative of restricted mobility and a need for durable containers than of cultivation.

The beginnings of a tradition of ceremonial earthwork and burial mound building can be seen in the Early Woodland period outside of the lower Ohio Valley. The Poverty Point and Adena cultures were the forerunners of this development. Archaeological evidence for this period shows a rapid development in some technologies related to social status which is probably indicative of a continuously growing need in many areas of eastern North America for the organization of the ceremonial, political, and economic activities of a larger local group in response to increased sedentarism, decreasing mobility, and increasing population density. The production of "ceremonial" objects of all kinds increased during this period, and this could be taken as evidence of greater organizational developments in the local group.

If the evidence for plant cultivation in the Early Woodland period is not entirely convincing, the evidence for more long-distance trade may provide a basis for alternative explanations of a slowly growing complexity in these societies. As has already been mentioned, better organization of social groups, greater differences of status within them, and more long-distance trade may also be partly the result of the importance of the distribution of food and other goods in a collecting economy (Ford 1974). Given a more sedentary way of life, the trade of commodities across ecological resource zones could have had adaptive value where the variability of yield for noncultivated natural resources is high from area to area (as in the case of nut-bearing trees and animal populations) (cf. Muller, in press c). The evidence for slightly more trade of exotic items over long distances in this period may thus indicate that there was also a more important trade in the produce of a collecting, and perhaps small-scale horticultural, economy.

Diagnostic traits of the Early Woodland period include thick limestone-tempered pottery which is usually fabric impressed or cord roughened with flat-bottomed vessels (Cole et al. 1951: 189-200). Reel-shaped gorgets, which first appear in the Late Archaic, occur with greater frequency in Early Woodland sites (Cole et al. 1951: 205) and often accompany burials.

The major Early to Middle Woodland complex in the central portion of the Ohio Valley in Illinois is the Baumer phase (Cole et al. 1951).

It is possible that some part of the Baumer phase may be Early Woodland in date. However, it seems likely that Baumer is predominantly Middle Woodland in time; and this complex is discussed more fully in the next section. If it is the case that Baumer is essentially Middle Woodland in time, it is possible that actual Early Woodland in the temporal sense is missing in the lower Ohio River valley. Recent, unpublished work by Southern Illinois University in the Black Bottom of the Ohio has revealed one nonceramic site dating to approximately 600 B.C., but virtually nothing is known about the nature of this occupation. Thus, it is possible that ceramic technology was not introduced into the area until Middle Woodland times even though the appearance of much of the Baumer pottery is close to that of Early Woodland pottery elsewhere in the central United States. To the north of the Ohio River, the Crab Orchard complex is very similar to Baumer (Maxwell 1951).

The Middle Woodland Period

The Middle Woodland period is marked by a dramatic increase in long-distance trade and by the spread of "formative" cultures to many areas of eastern North America. While Poverty Point and Adena were the only formative cultures in earlier periods, major formative cultures found in Middle Woodland times include Kansas City Hopewell in Missouri, Illinois Valley Hopewell, Trempeleau in Iowa and Wisconsin, Hopewell in Ohio and northern Kentucky, Point Peninsula in Pennsylvania and New York, Santa Rosa in southern Georgia, Swift Creek in northern Florida, Copena in northern Alabama, and Marksville in Louisiana, to name some major areas. Participation in networks of external trade become a major characteristic of Middle Woodland societies. Such networks have been called "interaction spheres," the most well-known being the "Hopewell Interaction Sphere" (Streuver 1964).

Although maize is known to have been present in Middle Woodland times in eastern North America, the evidence still suggests that cultivated plants still played a relatively small part in the diet (Ford 1974). The development of external trade networks and their counterparts, the local distributive networks, may have played an important economic role in these societies, however.

"Formative" culture, which spread widely during Middle Woodland times, is marked mainly by large, usually conical burial mounds and/or ceremonial earthworks (in Ohio mostly), as well as by exotic goods in quantity, most often found with burials in the mounds. Such goods were often traded over very long distances. They include: copper beads, pan-pipes, axes, or other implements; conch shell cups, some engraved; finely made stone animal or human effigy platform pipes; gorgets made from cut carnivore jaws; and hematite and red ocher (as in Fowler 1957a). As such items occur in lesser quantity in cemetery burials as compared with the fewer mound burials, there is good evidence of differences of social status for Middle Woodland.

In general, such higher social or political statuses were probably derived through social roles in local distributive networks or through roles in external trade networks (cf. Muller, in press c). The distribution of exotic materials throughout eastern North America at this time appears to find closer analogies with the nature of status and distribution in Melanesia rather than the more highly centralized and ranked societies in Polynesia. In other words, the possession of exotic goods and of status itself may have been more often achieved by Middle Woodland "leaders" than inherited through membership in chiefly lineages. This, of course, must remain a moot point until more effort is expended in the eastern United States on archaeology aimed at testing such hypotheses. In any case, there were differences between regions in terms of the degree of ranking for this period.

The Southeast of North America has been seen as rather less developed in Middle Woodland times in terms of social organization than the southern Northeast. Ironically, this may be a reflection of the greater carrying capacity of the southeastern environment. It may simply be that the southeastern swamps, river valleys, and woodlands were so rich in resources that a relatively high density of population was possible without the need for centralized political authority (Muller, in press c). When the volume of burial mounds is examined, it can be seen that the amount of labor involved in such construction is usually not greater than that which might be locally available as a result of reciprocal obligations to important persons or "Big Men" (Service 1975). In the Southeast, social statuses may have resulted more from external trade relations than from the local distribution system. Given increasing population pressure, requiring more efficient production and distribution systems as well as creating increasing need for maintenance of order, "Big Man" societies may well become "chiefdoms" characterized by increasing emphasis on inheritance of authority, economic redistribution, and centralization of power (Service 1975).

There is also an elaboration of decorative styles during the Middle Woodland period. Techniques in the decoration of pottery such as zoned stamping, rocker stamping, dentate stamping, punctation, and incising make their appearance or are more frequently used during this period. Such techniques were infrequently used in the Illinois parts of the lower Ohio River valley, however.

Most of the Illinois Ohio valley locality was largely peripheral to the major development of Middle Woodland times. Sites of the Middle Woodland period seem to occur mainly in the Black Bottom locality across from the Tennessee and Cumberland river mouths and in the lower Saline and Wabash basins. The Rutherford Mound site (Fowler 1957) overlooks the Saline River from a bluff about 2.5 kilometers from the Ohio River bank. The site dates to about A.D. 465 and is clearly a Middle Woodland one, which has been informally tied to "Wabash Valley Hopewellian" or the Mann complex (Munson, Limp, and Barton 1977:86; Winters 1967:44 ff.). Very near the Wabash River mouth and also about 2.5 kilometers from the Ohio River is at least one mound group, most

likely of Middle Woodland time period. There is another Middle Woodland mound site on the Ohio, near the Mississippi River, also further than a kilometer from the river bank. In the remainder of the lower Ohio valley, Middle Woodland sites occur only as campsites or as village sites, such as the Baumer site, as far as is presently known.

As mentioned in the previous section, the major Early to Middle Woodland complex in the central portion of the Ohio Valley in Illinois is the Baumer phase, with thick fabric-impressed pottery with limestone temper (Cole et al. 1951:184-210). It is possible that some part of the Baumer phase may be Early Woodland in date; however, Baumer is predominantly Middle Woodland in time. The presence of rare sherds similar to those of Hopewellian and occasional decoration of pottery similar to Hopewellian decoration are generally seen as evidence of the essentially Middle Woodland character of the Baumer phase (Cole et al. 1951:200).

Another cultural complex with very similar features is known as the Crab Orchard phase. This complex was originally defined for the area close to Carbondale, Illinois (Maxwell 1951). The Crab Orchard phase appears to be essentially an upland variant of the more lowland-oriented Baumer phase. Crab Orchard sites have also been identified in the Wabash Valley, but these sites could probably be treated as being Baumer if minor differences in temper in pottery are de-emphasized. Neither Baumer nor Crab Orchard show heavy evidence of participation in the networks of exchange that developed among various Hopewellian complexes, but Crab Orchard sites do contain more "Hopewellian" material than do the more distant Baumer sites. Sites in the lower Wabash and Saline, such as Rutherford Mounds, however, do show evidence of such participation (Fowler 1957).

The decline of Middle Woodland in the northeast has been attributed to many causes, ranging from peasant revolt (very unlikely) to climatic shifts which lowered the carrying capacity of the environment below that point for which efficiency of distribution could compensate (possible). One of the problems of the climatic interpretation, however, is that it may even be that the population of eastern North America actually increased following the decline of Hopewell and other important Middle Woodland cultures. In any case, the time of transition between the Middle and Late Woodland periods was a time of change in eastern North America.

Diagnostic Middle Woodland artifacts:

Pottery:

- Baumer plain (Cole et al. 1951:195-96)
- Baumer cord-marked (Cole et al. 1951:196-98)
- Sugar Hill cord-marked (Maxwell 1951:273-74)
- Crab Orchard fabric-marked (Maxwell 1951:274-75)
- Crab Orchard cord-marked (Maxwell 1951:275-76)

Projectile points:
Snyders corner-notched (Winters 1967:45-46)
Affinis Snyders point (Winters 1967:26-27, 45-46)

The Late Woodland Period

There is an important discontinuity in the pattern of seemingly continuous growth and development in the cultures of eastern North America during the Late Woodland period. Across the northern part of the eastern United States at least, Late Woodland cultures appear to be very similar. The Middle Woodland tradition of fairly elaborate decoration on pottery is eclipsed, and nearly all ceramics are of a simple cord-marked type. There is a marked decrease in the building of burial mounds and a decrease of earthwork building. There is also a relative lack of items acquired through long-distance trade as compared to Middle Woodland and a seeming lack of evidence of status differences. This state of affairs has led many scholars to speak of a decline in culture for this period, or of a "good grey period." However, a noticeable increase in the number of Late Woodland sites in most areas as compared to Middle Woodland may very well indicate a population increase. This and the continuance of Middle Woodland-like traditions in parts of the southern United States leads one to believe the Late Woodland period was a time of important change despite its appearance of decline.

For example, while moundbuilding had almost entirely ceased in the north, the moundbuilding traditions of the Middle Woodland period were continued at the Kolomoki site in southern Georgia, the Weeden Island culture of northern Florida, and the Issaquena phase of the Marksville culture in Louisiana. In fact, mound construction in these cultures is in some ways more elaborate than that of the earlier cultures and begins to show some characteristics of moundbuilding in the Late Prehistoric period. Thus, while the Late Woodland is generally characterized by a decrease in the organization of activities, this may not be the case in all areas.

In most areas, however, the evidence for differences in social status, and for political organization in general, is on the decrease for Late Woodland. One of the more striking characteristics of this period is the curtailment of long-distance trade in exotic items which was so important earlier. While it would be tempting to conclude that this was due to a greater independence of local groups brought about by an increased productivity from cultivated plants, the evidence for horticulture in Late Woodland is nearly as poor as it is for earlier periods. Furthermore, Late Woodland sites were often located in agriculturally poor upland areas.

Another factor which has been suggested as contributing to the changes of the Late Woodland period is the introduction of the bow and arrow at about this time (Ford 1974). If the greater efficiency and

accuracy of bows and arrows helped to make possible the exploitation of a wider range of animal food sources and hence the greater independence of the local groups, there would be less need for long-distance trade networks like the Hopewell Interaction Sphere. Until there is better evidence of the utilization of plant and animal resources by Late Woodland peoples, it will not be known whether the changes which occurred during this time were the result of a new hunting technology, of some increase in plant cultivation, of changes resulting from climatic conditions, or some combination of these factors. From the evidence of site location and of plant and animal remains that is available, however, it would appear that the Late Woodland pattern is one of intensified hunting and collecting. Even so, fairly large, and probably semi-sedentary, occupation sites are not infrequent for Late Woodland.

During Late Woodland times, as well as in other periods, there appears to be a cultural boundary near the mouth of the Wabash River. The Lewis phase has been defined in the lower portion of the Ohio River valley (Cole et al. 1951:Chapter V; MacNeish 1955g). Duffy and/or Yankeetown phase sites are found in the area of the lower Wabash (Winters 1967:69-70; Munson, Limp, and Barton 1977:87-88). The differences among these complexes are mainly to be found in ceramic technology. The general way of life appears to be the same in all areas. As in the case of all the phase distinctions made in the lower Ohio, refinements of phase definitions are needed.

Late Woodland diagnostic artifacts include thin, cord-marked pottery and small projectile points. In some areas, burial cairns of limestone slabs were built. One such site is listed in Appendix A: the 25D2-06 site in river mile group 883-887.

The Lewis phase (MacNeish 1944a) is identified by Lewis pottery (Cole et al. 1951:178-81) and by various projectile point types (Cole et al. 1951:174-5). The differences between the ordinary Lewis sherds and those found in other Late Woodland complexes such as Duffy and Yankeetown (Winters 1967:69-70) and Raymond and Dillinger (Maxwell 1951) are slight. In most cases, it would be a brave specialist who would undertake to classify a site as belonging to a particular Late Woodland complex on the basis of only a few cord-marked sherds. The major differences occur in temper type and in low frequency decorated types. In the Tennessee-Cumberland confluence area, the distribution of Lewis sites is very similar to later Mississippian sites; and later Lewis levels show decreasing use of cord roughening. The exact relationship of Lewis to other Late Woodland complexes to the north is obscured by the spotty nature of archaeological coverage.

Diagnostic Late Woodland artifacts:

Pottery:

- Lewis cord-marked (Cole et al. 1951:180)
- Lewis plain (Cole et al. 1951:180)
- Duffy plain (Winters 1967:66-67, 89)

Duffy decorated (Winters 1967:66-67, 89)
Yankeetown incised (Winters 1967:66-67)
Yankeetown filletted (Winters 1967:66-67

Projectile points:
Mounds stemless (Winters 1967:70)

The Late Prehistoric Period

The Late Prehistoric period involved a dramatic increase in the dependence upon agriculture as a food resource (Ford 1974). Granted that the evidence on this problem is incomplete, the change to an agricultural economic base seems to have occurred very rapidly. The causes of change are also not totally clear. New varieties of maize seem to have been introduced at about this time, and it is likely that the bean (Phaseolus vulgaris) was also introduced into the southeast slightly later. Dependence upon agriculture, however, was far from complete. Remains from sites of this period suggest a continued reliance on deer, fish, small game, migratory waterfowl, and nuts for food.

This economic pattern of a larger scale horticultural regime supplemented by hunting and collecting of wild foods spread rapidly to most of eastern North America. In the areas more favorable for agriculture, notably annually flooded areas on the larger streams and major rivers, a cultural pattern developed known as Mississippian. Its characteristics are shell-tempered pottery, animal or human effigy bowls, rectangular substructure mounds usually arranged around a plaza, and triangular projectile points.

The political organization of the societies of the Late Prehistoric period differed markedly from that of any earlier period. Accounts of early Spanish explorers as well as evidence from excavations of the large sites show that political authority was centralized and fairly powerful. Political leaders and their close kinsmen probably enjoyed special privileges and may have functioned in the society as a leadership group in times of war and as an economic force by which trade and the distribution of goods and services could be controlled and stabilized. With much larger populations and hence with a fairly large and tributary labor force, Mississippian political leaders organized the construction of large ceremonial centers which were often surrounded by defensive palisades of wood, wattle, and daub (for discussion of Mississippian fortification, see Lafferty 1973). These ceremonial centers consisted of large rectangular truncated mounds that often served as platforms for ceremonial buildings or dwellings of important persons.

Mississippian sites are of several types; and, in many cases, the size of these sites is limited by the need to occupy higher ground of the ridge-and-swale bottomland areas which were best for agriculture

but which were often flooded. In addition to the larger centers such as the Kincaid site, a large "town" in the center of the Black Bottom slightly outside the project boundaries (Cole et al. 1951; Muller, in press a, b; and other sources listed under Massac County), there were smaller centers with fewer and smaller mounds. The Kincaid site itself is a National Historic Landmark and is a State of Illinois Archaeological Preserve. In areas with larger bottomland ridges, there were hamlets of from ten to fifteen houses. The most common type of Mississippian site, however, was the farmstead consisting of from one to three houses, usually scattered along a ridge.

Usually a major ceremonial center and town were surrounded by many hamlets and farmsteads (Butler 1977; Muller, in press a). The Mississippian houses in these settlements were "nuclear family-sized" dwellings (approximate average of 5 x 5 meters) made of wattle and daub with thatched roofs.

Mississippian cultures in the strictest sense are largely restricted to the northern coastal plain along the Mississippi and Ohio rivers as well as in the Tennessee and Cumberland River valleys. Although the basic characteristics of Mississippian in these areas are relatively uniform, there are substantial local and regional differences. There are many similar cultures in other areas of the eastern United States which have sometimes been characterized as Mississippian or Mississippian-influenced, but many of these appear to have somewhat different methods of adaptation to their environments.

Mississippian cultures show an apparent decline of social organization after A.D. 1350, but the causes for this apparent decline are not clear. Factors as diverse as adverse climatic conditions and the development of new productive capabilities have been proposed (Muller, in press c). By the late sixteenth century, the introduction of European diseases decimated many remaining Mississippian societies.

Because of the homogeneity of the Late Prehistoric cultures of the Ohio River valley in southern Illinois, it is usually not possible to attribute sites to a given phase solely on the basis of the site records or diagnostic artifacts. Four major phases have been named in the project area or in nearby localities, however. The first of these is the Kincaid phase, named for the major Mississippian center in the lower Ohio valley (Cole et al. 1951, and many other papers listed under Massac or Pope counties). The duration of the Kincaid phase is from at least A.D. 1000 to 1400, and the phase may have begun as early as A.D. 900. This phase is located in the area of the Tennessee, Cumberland, and Ohio river junctions. The Angel phase (Black 1967), named for the large center near Evansville, Indiana. is closely related to Kincaid although it may be somewhat later. The Angel and Kincaid phases are similar enough that the justification for separate phase names can be questioned. In any case, there is very little way to determine whether a site lying half way between the two centers should be attributed to one or the other phase. A third phase

is known as Caborn-Welborn and dates to circa A.D. 1450 to 1650 (Green and Munson, in press). This phase is limited to the area surrounding the Ohio and Wabash confluence. Caborn-Welborn is actually quite different from Angel or Kincaid phases and can be identified by Caborn-Welborn pottery (Green and Munson, in press). Another Late Prehistoric phase which may occur in the very lowest part of the Ohio River valley is known as the Cairo Lowlands phase (Williams 1954; Phillips 1970: 928), and it dates roughly the same period as the Kincaid phase. This is predominantly a complex of southeast Missouri, but it is possible that some sites in the Ohio Valley might be assigned to this phase were better information available.

Diagnostic Late Prehistoric ceramics:

Kincaid phase:
Kincaid plain (Cole et al. 1951:145-46)
Kincaid red-slipped (Cole et al. 1951:147-48)
Nashville negative-painted, var. Kincaid (Phillips 1970:140-41)

Angel phase:
Nashville negative-painted, var. Angel (Phillips 1970:140)

Caborn-Welborn phase:
unnamed ceramic types (Green and Munson, in press)

Cairo Lowlands phase:
Bell plain, var. New Madrid (Phillips 1970:60-61)
Wickliffe thick, var. Wickliffe (Phillips 1970: 171-72)

Historic Indians

There is some evidence that the lower Ohio River valley was a boundary area, or "no man's land," during early historic times for Indian groups. The area was probably used as a hunting ground by various groups: the Shawnee and possibly the Yuchi and Chickasaw to the south, and the Algonkian tribes to the north such as the Kaskaskia, Cahokia, Tamaroa, and Illini. The Shawnee may have had the best claim to the area, though their major center of settlement during Tecumseh's day was in the central and upper Wabash valley. The large Indian site at Shawneetown, Illinois, is of course reputed to be a Shawnee village site; but this is tradition with little supportive archaeological evidence. The other identified historic Indian sites in the project area are Indian villages near to and associated with Fort Massac (Lathrop and Grubisich 1970). It is likely that these were villages of mixed tribal composition, inhabited by Indians who wished to live near the

fort for trading or other purposes. There has to date been no identification of artifacts from these sites which could determine cultural affiliation with a particular tribe.

HISTORICAL RESOURCES OF THE OHIO RIVER VALLEY IN ILLINOIS

by David Wilson and Margo Carlock

Introduction

An intense survey, using the resources of Morris Library at Southern Illinois University, was made of county and state histories. Particular attention was paid to material relating to the six Illinois counties touching the Ohio River -- Gallatin, Hardin, Pope, Massac, Pulaski, and Alexander. Maps, atlases, and travel accounts were surveyed; and the National Register of Historic Places was consulted. These materials were used to evaluate the historical importance of the Ohio River to the development of Illinois.

The researchers also then travelled to the state capital in Springfield, Illinois, to examine State archives for relevant material. The Works Project Administration's survey of county records completed in the 1930's indicated that county records in southern Illinois were fragmentary at best. The researchers consulted local authorities knowledgeable on the history of the six counties. It was confirmed that the records of the various counties were in sad condition. Many valuable materials have been destroyed in various fires and natural calamities. The Illinois State Historical Library in Springfield was visited because of its fine collection of county histories.

The records of the Division of Historic Sites, Illinois Department of Conservation in Springfield, were investigated. These records included considerable data not listed in the Illinois Historic Landmarks Survey and the Illinois Historic Structures Survey. In fact, given the time constraints, this study would have been impossible without these invaluable materials. The local authorities consulted supplemented this data. One local historian pointed out, for example, that the U. S. Naval Hospital in Mound City, appearing on the National Register of Historic Places, recently burned; and little of the original structure remains.

The information gathered on historic sites was then analyzed during the preparation of the report. The data presented have several limitations. County histories written in the late nineteenth and early twentieth centuries are notoriously unreliable. These histories must be subjected to intense questioning. The memories of local authorities

are fallible and should be accepted only after verification. Another potential problem is that the Illinois Historic Landmarks Survey and the Illinois Historic Structures Survey are only preliminary investigations subject to revision. The researchers believe that little of additional significance would be turned up in a new survey of the area between Cairo and Metropolis. According to the Illinois Historic Site Officer in Shawneetown, however, there may be gaps in the survey of the area between Shawneetown and Metropolis. The researchers believe that this gap in information should not significantly bias the results of this study so long as it is understood that all sites worthy of inclusion have probably not yet been identified. Only a more intense -- and costly -- investigation could accomplish this task.

The Historical Development of the Lower Ohio River Valley in Illinois

The Ohio River has long been central to the development of the Illinois country. During prehistoric times, the numerous Indian sites attest to the river's importance. The river provided many of the necessities of life while also serving as an avenue of communication and trade. The river must have dominated the lives of the Indians dwelling along its banks.

The powerful Iroquois Confederation prevented early English colonists from spreading into the Ohio River valley from the east during the seventeenth century. The Iroquois, however, were unable to prevent the French in Canada from coming into the Mississippi Valley from the north. Louis Jolliet and Father Jacques Marquette, early French explorers, discovered Illinois in June, 1673, while travelling down the Mississippi River seeking a route to the Orient. They canoed down the Mississippi past the mouth of the Ohio to the junction of the Arkansas River and the Mississippi. The French established a series of settlements along the Mississippi (the area now known as *American Bottom*) with Cahokia (1699) and Kaskaskia (1703) the most important. These settlements gave the French control of the middle of the North American continent from the Great Lakes to New Orleans.

The first French attempt to exploit the Ohio River began in 1702. Charles Juchereau de St. Denys, a fur trader and a royal judge in Montreal, proposed to establish a tannery for bison hides near the confluence of the Ohio and the Mississippi. Juchereau believed that his outpost would become the focal point for French colonization of the area. The proposal attracted Louis XIV because the English were beginning to penetrate the center of the continent from the south. This threatened to upset the balance of power in the region, and Louis XIV hoped that a fortified settlement would end the threat. Juchereau established his tannery in 1703 on a hill overlooking the Ohio River (the site today is called the VaBache site near river mile 957). Whether the tannery failed as a result of disease or Indian

attack is uncertain. After this initial failure, the French were slow to pursue their advantage of easy access to the Ohio from the Mississippi.

Strategically, the Ohio River was the key to the middle of North America by the 1740's. Consequently, the river became one of the focal points in the great struggle for empire between England and France during the eighteenth century. Indeed, the French were convinced of the need to control the Ohio River valley and began to move aggressively into the upper Ohio region. These activities provoked American colonists from Virginia interested in exploiting the area. The Virginians, led by George Washington, attempted to force the French out of the area. Thus, the first engagements of the French and Indian War (Seven Years War in Europe) occurred in the Ohio Valley. The French presence in the upper valley made it necessary for them to fortify the lower region of the river to protect their lines of communication from disruption. The construction of a fort near the confluence of the Mississippi and Ohio was authorized as early as 1746. Fort Massac (Fort de l'Ascension) was not construction until 1757, however. The fort provided the French with some obvious military advantages. It protected supply lines into the upper Ohio while guarding the Mississippi from incursion. But the French eventually lost the war and were forced to cede Canada and the middle of the continent to England.

Although Canada fell to the English in 1760, they failed to occupy the Illinois country until 1765 because of problems with the Indians. The English planned to garrison Fort Massac with sixty soldiers, but the fort was burned by Indians before the soldiers arrived. The fort was reconstructed a decade later by the Americans.

American colonists understood that control of the Ohio River was the key to the domination of the middle of the continent. In the Proclamation of 1763, the British closed the newly won territory to colonization. This policy was one of the early points of contention between the Americans and the English. The colonists believed that they had won the right to settle and to exploit the region during the French and Indian War. The English, on the other hand, wanted to protect their valuable fur trade and maintain good relations with the various Indian tribes along the river. The American colonists -- to the great distress of the English -- simply ignored the imperial edict and began the long trek across the Alleghenies. And so the struggle for the possession of the Ohio River valley continued.

The American Revolution started in 1775; and George Rogers Clark, a settler in Kentucky, convinced the governor of Virginia that it was essential to mount an expedition against the British forces in and around Illinois. Moving down the Ohio to the site of Fort Massac and then overland to Fort Kaskaskia, Clark carried out a brilliant campaign in 1778. His efforts meant that the Americans could rightfully claim the interior of the continent in the final peace settlement with the British.

Southern Illinois was claimed by Virginia until 1783 when the newly freed colonies ceded all their western land claims to the new national government organized under the Articles of Confederation. The few Americans along the river were left largely to their own devices for years with no real government. As travellers moved down the Ohio, the unwary were often waylaid by river pirates in places like Cave-in-Rock (river mile 880). The Northwest Ordinance passed in 1787 organized the vast territory east of the Mississippi and north of the Ohio into the Northwest Territory. It was decreed that the region would eventually be divided into not more than five nor less than three states. This was the first time in history that a nation allowed for the admission of its territories on an equal basis. By 1790, the governor of the Northwest Territory, Arthur St. Clair, reached Illinois and established a rudimentary government. In 1797, Cantonment Wilkinson (river mile 958) was built to protect whites against Indians and river pirates and to watch over the machinations of the Spanish. Control of the river was essential for these tasks. Fort Massac was also reconstructed and garrisoned.

In 1800, Illinois became a part of the Indiana territory with William Henry Harrison as governor. At that time, the approximately 2,500 residents of Illinois (according to the census of 1800) all lived along the navigable streams of the area. As there were no roads into the interior, water transportation was the only practicable means of travel. In 1808, Illinois was organized into a separate territory with the Mississippi, Ohio, and Wabash rivers forming the southern boundaries. The territorial capital was establish at Kaskaskia on the Mississippi River.

With the purchase of the Louisiana Territory from France in 1803, Illinois was no longer the western boundary of the United States. This meant that the Mississippi River was open to the sea without constraints from the Spanish or French authorities. Although westward migration was temporarily halted by the War of 1812, the Illinois territory was attractive to settlers. The Ohio River became the gateway to the west. The pioneers moved down the river from the east or crossed it from the south to enter the territory. Most settled along waterways in the southern region of the territory.

The newly invented steamboat added to the importance of the Ohio River by making it possible to travel quickly and efficiently either upstream or downstream. Within a few years after the War of 1812, steamboats were operating on a regular basis on the navigable streams and rivers of the midwest. This stimulated commerce and encouraged further settlement along the rivers. On the Ohio River in Illinois, towns like Shawneetown, Elizabethtown, Golconda, Metropolis, Grand Chain, Caledonia, Mound City, Trinity, and Cairo grew up and prospered as river ports from 1812 until after the Civil War.

Enough people had migrated to Illinois by 1818 to make the territory eligible for statehood; and, in that year, the territory was

organized into the twenty-first state. The majority of the people living in the new state were in its southern region. Because of the utility of water transportation, most of these people lived near a river. But challenges to the supremacy of the river system developed in the 1820's. The completion of the Erie Canal in 1825 made the central and northern portions of the state easily accessible from the Great Lakes. Lake transportation in conjunction with a growing railroad and canal network bound upper Illinois to the industrializing northeast. Consequently, most of the growth in the state after 1830 occurred in the north rather than in the south. This shifting growth pattern was reflected by the moving of the state capital to Vandalia and then to Springfield in 1837.

The fertile prairies to the north attracted hundreds of thousands of farmers which led to the growth of numerous communities to service the farmers. Chicago grew rapidly as a center of trade during the 1840's and 1850's. But the Ohio River was still an important avenue of commerce and contributed greatly to the prosperity of southern Illinois.

During the Civil War, the Ohio River again assumed great strategic importance. General Ulysses S. Grant realized that southern tributaries of the Ohio River, particularly the Cumberland the Tennessee Rivers, pointed the way into the heart of the Confederacy. Starting from Cairo, Grant utilized gunboats, many of which were constructed at the Marine Ways in Mound City, to attack southward into Tennessee. Once control of this river system was secured in 1862, Grant moved on Vicksburg and captured the city on July 4, 1863. This meant that the Union controlled the center of the continent which was a major factor in the Union victory.

Cities like Cairo and Mound City prospered as a result of the war. Cairo became the major staging area for Grant's southern movements. The city was located at the confluence of the Mississippi and Ohio and was the southern terminus of the Illinois Central Railroad. And, indeed, it was during the Civil War that these Ohio River communities reached their zenith.

Southern Illinois was economically, socially, and culturally a reflection of the south. After the Civil War, the south was prostrate. The rapid postwar industrialization of the north passed by southern Illinois. The cities along the river started a slow process of deterioration that has not been arrested. The areas along the Ohio River in Illinois withered away, but the energy crisis has caused a revival of coal mining in southern Illinois; and this may restore prosperity to the region. The need to transport the coal to market should revive river commerce. Also, as other forms of transportation become more expensive, river transportation may reach new peaks.

The years since the Civil War have not been kind to southern Illinois, and this fact is reflected in the nature of the historic

sites along the river. Most places of historic significance were created in the days during or before the Civil War. After that time, prosperity faded and hopes waned. But perhaps the problems created by the worldwide energy crisis will again restore these moribund river communities. If that occurs, the existing historic sites will call to mind the rich heritage of an earlier era.

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APPENDIX A

ARCHAEOLOGICAL SITES WITHIN A KILOMETER OF THE OHIO RIVER IN ILLINOIS

List of Codes

1. Site Types
   - Village = V
   - Camp = C
   - Farmstead = F
   - Town = T
   - Earth Mound = EM
   - Stone Mound = SM
   - Platform Mound = PM
   - Stone Box Graves = SBG
   - Burial = B

2. Periods
   - Paleoindian = PI
   - Archaic = A
   - Early/Middle Woodland = E/MW
   - Late Woodland = LW
   - Late Prehistoric (Mississippian) = M
   - Historic Indian = HI
   - No Period Assigned = NPA

3. Cultures

   Archaic
   - Faulkner = F

   Early/Middle Woodland
   - Baumer = B
   - Crab Orchard = CO
   - Wabash Valley Hopewell = WVH

   Late Woodland
   - Lewis = L
   - Duffy = D
   - Yankeetown = Y

   Late Prehistoric
   - Kincaid = K
   - Angel = A
   - Caborn-Welborn = C-W
   - Cairo Lowland = CL

   Historic Indian
   - Shawnee = S
   - Unidentified Historic Indian = HI

4. Site Conditions	Excavated = E Tested = T Surface Collected = SC Controlled Surface Collected = CSC Destroyed = D
5. National Register Status (NR)	On National Register = NR Nomination Pending = P Eligible = E Potentially Eligible = PE Insufficient Data = ID
6. Vegetation Zone (veg.)	Cane Bottom Forest = CBF Post Oak Flats = POF Post Oak Barrens = POB Moist Woods = MW Upland Forest = UF Mesic Upland Forest = MUF Upland Stream Bottom = USB Wet Woods = WW Deep Swamp = DS
7. Location of Records	Illinois Archaeological Survey = IAS Southern Illinois University Museum = SIUM Southern Illinois University Department of Anthropology = SIUDA

Appendix A
Archaeological Sites Within a Kilometer of the Ohio River Bank by Five-River-Mile Groups

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
River Miles 848-852:															
25B2-06			G-15	EM,V	E/MW	WVH	610	324	350			E	306	CBF	IAS, SIUM
25B2-39			G-107	C	A		1000	40	350		SC	PE	306	CBF	IAS, SIUM
25B2-40			G-108	C	A		1000	40	350		SC	PE	306	CBF	IAS, SIUM
25B2-10			G-20	PM	M		255	205	350		SC	E	284	CBF	IAS, SIUM
25B2-11			G-21	PM	M		300		345			E	306	CBF	IAS, SIUM
25B2-28			G-67	C	E/MW		1000	20	330		SC	PE	306	CBF	IAS, SIUM
UTM square group:	16SDS:	0884, 0984, 0783, 0883, 0983, 0782, 0882, 0781, 0881, 0780, 0880, 0679, 0779, 0578, 0678, 0778, 0577, 0677.													
River Miles 853-857:															
25B4-62			G-5	EM	HI	S	115		350			E	284	CBF	IAS, SIUM
25B4-20			G-54	V			800	205	350			ID	462a	MW	IAS, SIUM
24B4-22			G-55	V			370	41	340		SC	ID	426	WW	IAS, SIUM
UTM square group:	16SDS:	0577, 0677, 0376, 0476, 0576, 0676, 0075, 0175, 0275, 0375, 0475, 0074, 0174, 0274, 0374, 0073, 0173, 0072.													
	16SCS:	9974, 9973, 9972.													
River Miles 858-862:															
25B4-08			G-12				510		360		SC	ID	208	MW	IAS, SIUM
25B4-11			G-27	C	M		15	20	340		SC	PE	306	CBF	IAS, SIUM
25B4-55			G-117	C	A		1000	82	350		SC	PE	461a	MW	IAS, SIUM
25B4-58			G-120	C	A		1000	41	350		SC	PE	461a	MW	IAS, SIUM
25B4-54			G-116	C	A		750		350			ID	284	CBF	IAS, SIUM
25B4-37			G-77	V	E/MW		915	205	350		SC	E	462	MW	IAS, SIUM
25B4-61			G-123	C	A		1000	82	350		SC	E	461b	MW	IAS, SIUM
25B4-53			G-114	C	A		450		350			PE	132b	MW	IAS, SIUM
25B4-52			G-115	C	A		845		350			PE	134c	MW	IAS, SIUM
25B4-57			G-119	C	A		1000	20	360		SC	PE	462c	MW	IAS, SIUM
25B4-13			G-31	C			385	410	350		SC	ID	175b	CBF	IAS, SIUM
25B4-14			G-30	C			1000	41	350		SC	ID	131c	MW	IAS, SIUM
UTM square group:	16SCS:	9972, 9771, 9871, 9971, 9770, 9870, 9669, 9769, 9869, 9668, 9768, 9667, 9767, 9666, 9766, 9765, 9665, 9664, 9764.													
River Miles 863-867:															
25B4-39			G-71	C	E/MW		780	41	340		SC	PE	306	CBF	IAS, SIUM
25B4-48			G-85	C	E/MW		50	123	340		SC	PE	306	CBF	IAS, SIUM
25B4-44			G-89	C	A		600	20	350		SC	PE	306	CBF	IAS, SIUM
UTM square group:	16SCS:	9664, 9764, 9763, 9863, 9762, 9862, 9962, 9861, 9961, 9860, 9960, 9859, 9960, 9859, 9959, 9958, 9957.													
	16SDS:	0059, 0058, 0158, 0057, 0157.													

Appendix A (Continued)

Site Number							Meters From	Size M^2 in				Nat.			
SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Bank	100's	Elev.	Depth	Cond.	Reg.	Soil	Veg.	Records
River Miles 868-872: no sites recorded for this section.															
UTM square group:	16SDS:	0057, 0157, 0056, 0156, 0256, 0155, 0255, 0355, 0354, 0454, 0253, 0353, 0453, 0352, 0452, 0552, 0451, 0551.													
	16SCS:	9957.													
River Miles 873-877: no sites recorded in this section.															
UTM square group:	16SDS:	0451, 0551, 0450, 0550, 0349, 0449, 0549, 0148, 0248, 0348, 0448, 0147, 0247, 0347, 0451.													
River Miles 878-882:															
25D2-358							100		350			ID	597	CBF	SIUM
25D2-359							75		350			ID	308	MUF	SIUM
25D2-356							45		450			ID	308	MUF	SIUM
25D2-357							50		400			ID	598f	MUF	SIUM
UTM square group:	16SDS:	0048, 0148, 0047, 0147.													
	16SCS:	9347, 9447, 9547, 9647, 9747, 9847, 9947, 9346, 9446, 9546, 9646.													
River Miles 883-887:															
25D2-01			Hn-2	V	LW		35	410	340			E	308	MUF	IAS, SIUM
25D2-06				SM	LW		190	54	490			E	599	MUF	SIUM
25D2-07				V,SBG	E/MW,M		100		360			E	131b	MUF	SIUM
25D1-29			Hn-18				500		340			ID	308	MUF	IAS, SIUM
25D1-30			Hn-19				460		340			ID	382	USB	IAS, SIUM
25D1-31			Hn-20				50		330			ID	600	CBF	IAS, SIUM
25D1-32			Hn-21				50		340			ID	461b	MW	IAS, SIUM
25D1-34			Hn-23				45		340			ID	288	USB	IAS, SIUM
25D1-35			Hn-24				40		340			ID	333	USB	IAS, SIUM
UTM square group:	16SCS:	8847, 8947, 9047, 9147, 9247, 9347, 8546, 8646, 8746, 8846, 8946, 9046, 9146, 9246, 9346, 8545, 8645, 8745.													
River Miles 888-892:															
25D1-23			Hn-12				60		350			ID	131d	UF	IAS, SIUM
25D1-24			Hn-13				55		360			ID	308	MUF	IAS, SIUM
25D1-01			Hn-1	PM	M		120	1435	370		T	P	308	MUF	IAS, SIUM
25D1-27			Hn-16				80		360			ID	463b	MW	IAS, SIUM
25D1-28			Hn-17				25		340			ID	597	CBF	IAS, SIUM
25D1-33			Hn-22				50		340		D	ID			IAS, SIUM
25D1-25			Hn-14				70		370			ID	462b	MW	IAS, SIUM
25D1-26			Hn-15				100		400			ID	308	MUF	IAS, SIUM
UTM square group:	16SCS:	8446, 8546, 8245, 8345, 8445, 8545, 8144, 8244, 8344, 8043, 8143, 8243, 8343, 8042, 8142, 7941, 8041, 8141, 7940, 8040.													

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
River Miles 893-897:															
25D1-09			Pp-106				110		430			ID	214c	UF	IAS, SIUM
25D1-17			Hn-6				115		330			ID	600	CBF	IAS, SIUM
25D1-18			Hn-7				450		340			ID	597	CBF	IAS, SIUM
25D1-19			Hn-8				700		350			ID	463	MW	IAS, SIUM
25D1-20			Hn-9				195		340			ID	597	CBF	IAS, SIUM
25D1-21			Hn-10				330		340			ID	597	CBF	IAS, SIUM
UTM square group: 16SCS: 7243, 7343, 7443, 7543, 7643, 7743, 7042, 7142, 7242, 7342, 7442, 7542, 7642, 7742, 7842, 7241, 7641, 7741, 7841, 7941, 7840, 7940.															
River Miles 898-902: no sites recorded in this section.															
UTM square group: 16SCS: 7042, 7142, 7242, 6941, 7041, 7141, 7241, 6840, 6940, 7040, 6839, 6939, 7039, 6838, 6939, 6737, 6837, 6736, 6836, 6735, 6835.															
River Miles 903-907:															
25C2-93			Pp-95				325		340			ID	462b	MW	IAS, SIUM
25C2-85			Pp-97	PM	M	K	115	715	355			E	462b	MW	IAS, SIUM
25C2-86			Pp-96	C	A,M	F,K	100	246	345			E	461a	WW	IAS, SIUM
UTM square group: 16SCS: 6735, 6835, 6734, 6834, 6633, 6733, 6833, 6632, 6732, 6531, 6631, 6731, 6630, 6630, 6730, 6529, 6629, 6428, 6528, 6628															
River Miles 908-912:															
25C2-44			Pp-45				160		440			ID	308	POB	IAS, SIUM
25C2-135			Pp-157	SBG	M	K	75		340			E	462b	MW	IAS, Sium
25C2-63			Pp-100	V	A,E/MW,M	F,B,K	975	1230	360			E	175b	CBF	IAS, SIUM
25C2-45			Pp-74				500	41	340			ID	461b	MW	IAS, SIUM
25D2-65			Pp-98	V	A	F	280		340		SC	E	462b	MW	IAS, SIUM
25C2-155			Pp-179	C	A	F	995	63	350			E	461c	MW	IAS, SIUM
25C2-04			Pp-4	C	A	F	540		340			E	461a	MW	IAS, SIUM
25C2-46			Pp-73				955		340			ID	460	MW	IAS, SIUM
	26 VI 75-5						290		330		SC	ID	462	MW	SIUDA
	26 VI 75-6			V	M	K	195		330		SC	E	462	MW	SIUDA
	26 VI 75-7				M	K	230		330		SC	PE	462	MW	SIUDA
	26 VI 75-8						205		340		SC	ID	462	MW	SIUDA
	26 VI 75-9						290		330		SC	ID	462	MW	SIUDA
	26 VI 75-10				M	K	155		340		SC	PE	462	MW	SIUDA
	26 VI 75-11						200		330		SC	ID	462	MW	SIUDA
	26 VI 75-12						150		330		SC	ID	462	MW	SIUDA
	26 VI 75-14				M	K	150		330		SC	PE	462	MW	SIUDA

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	26 VI 75-15				LW,M	L,K	120		330		SC	E	462	MW	SIUDA
	26 VI 75-16						155		330		SC	ID	462	MW	SIUDA
	26 VI 75-17				M	K	115		330		SC	PE	462	MW	SIUDA
	26 VI 75-18				LW,M	L,K	200		330		SC	E	462	MW	SIUDA
	26 VI 75-19						95		330		SC	ID	462	MW	SIUDA
	26 VI 75-20						205		330		SC	ID	462	MW	SIUDA
	26 VI 75-21			V	M	K	65		330		SC	E	462	MW	SIUDA
UTM square group: 16SCS: 6428, 6528, 6427, 6527, 6426, 6526, 6425, 6525, 6424, 6524, 6523, 6623, 6723, 6622, 6722, 6822, 6721, 6821, 6720, 6820.															
River Miles 913-917:															
25D3-06			Pp-44	SBG	M	K	400		340		SC	E	597	CBF	IAS, SIUM
			Pp-47	SBG	M	K	200		330		SC	E	597	CBF	IAS
			Pp-22	SBC	M	K	380		330		SC	E	597	CBF	IAS
	26 VI 75-2			V	M	K	325		330		SC	PE	597	CBF	SIUDA
	26 VI 75-3			SBG	M	K	245		330		SC	E	597	CBF	SIUDA
	25 VI 75-11						940		340		SC	ID	469	MW	SIUDA
	25 VI 75-12						810		340		SC	ID	469	MW	SIUDA
	25 VI 75-13				E/MW	B	890		340		SC	E	469	MW	SIUDA
	25 VI 75-14				M	K	795		330		SC	ID	469	MW	SIUDA
	25 VI 75-15						750		330		SC	ID	469	MW	SIUDA
	23 VI 75-0		Pp-24	SBG	M	K	600		330		SC	PE	597	CBF	SIUDA
	23 VI 75-1			V	M	K	750		330		SC	PE	597	CBF	SIUDA
	23 VI 75-3			V	M	K	500		330		SC	PE	597	CBF	SIUDA
	23 VI 75-4			V	M	K	450		330		SC	PE	597	CBF	SIUDA
	23 VI 75-5				M	K	400		330		SC	PE	597	CBF	SIUDA
	23 VI 75-6				M	K	350		330		SC	PE	600	CBF	SIUDA
	23 VI 75-8						585		330		SC	ID	600	CBF	SIUDA
	23 VI 75-10						490		330		SC	ID	600	CBF	SIUDA
	23 VI 75-11						590		330		SC	ID	600	CBF	SIUDA
	23 VI 75-12				LW,M	L,K	505		330		SC	PE	600	CBF	SIUDA
	23 VI 75-13						1000		330		SC	ID	600	CBF	SIUDA
	23 VI 75-14			V	LW,M	L,K	550		330		SC	E	600	CBF	SIUDA
	23 VI 75-16						670		330		SC	ID	597	CBF	SIUDA
	23 VI 75-17				M	K	655		330		SC	PE	597	CBF	SIUDA
	25 VI 75-1				M	K	105		330		SC	PE	597	CBF	SIUDA
	25 VI 75-2				LW, M	L,K	55		330		SC	PE	597	CBF	SIUDA
	25 VI 75-3						55		330		SC	ID	597	CBF	SIUDA
	25 VI 75-4				LW	L	35		330		SC	PE	597	CBF	SIUDA
	25 VI 75-5						165		330		SC	ID	597	CBF	SIUDA
	25 VI 75-6				M	K	780		330		SC	PE	597	CBF	SIUDA
	25 VI 75-7				M	K	245		330		SC	PE	597	CBF	SIUDA
	25 VI 75-8				M	K	245		330		SC	PE	597	CBF	SIUDA

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	25 VI 75-9				M	K	215		330		SC	PE	597	CBF	SIUDA
	25 VI 75-10				M	K	25		330		SC	PE	600	CBF	SIUDA
25D3-04				SBG	M	K	175		330		SC	E	600	CBF	SIUDA
	24 VI 75-1			F	LW,M	K	150		330		SC	PE	597	CBF	SIUDA
	24 VI 75-2			F	LW,M	K	150		330		SC	PE	597	CBF	SIUDA
	24 VI 75-3						215		330		SC		597	CBF	SIUDA
	24-VI 75-4			F	M	K	140		330		SC	E	597	CBF	SIUDA
	24-VI-75-5			F	M	K	150		330		SC	E	597	CBF	SIUDA
	24 VI-75-6				LW,M	L,K	150		330		SC	PE	597	CBF	SIUDA
	24 VI 75-7			F	LW,M	L,K	100		330		SC	PE	597	CBF	SIUDA
	24 VI 75-8			V			165		330		SC	ID	597	CBF	SIUDA
	24 VI 75-9			V	E/MW,M	B,K	215		330		SC	PE	597	CBF	SIUDA
	24 VI 75-10				M	K	150		330		SC	PE	597	CBF	SIUDA
	24 VI 75-11			V	M	K	145		330		SC	PE	597	CBF	SIUDA
	24 VI 75-12				LW,M	L,K	150		330		SC	PE	597	CBF	SIUDA
	24 VI 75-13						325		330		SC	ID	597	CBF	SIUDA
	24 VI 75-14						315		330		SC	ID	600	CBF	SIUDA
	24 VI 75-15						110		330		SC	ID	600	CBF	SIUDA
	24 VI 75-16				M	K	285		320		SC	PE	597	CBF	SIUDA
	24 VI 75-17				M	K	315		320		SC	PE	597	CBF	SIUDA
	24 VI 75-19				M	K	315		320		SC	PE	597	CBF	SIUDA
	24 VI 75-20			F	LW,M	L,K	145		320		SC	PE	597	CBF	SIUDA
	24 VI 75-21						190		320		SC	ID	597	CBF	SIUDA
	24 VI 75-22						280		320		SC	ID	597	CBF	SIUDA
	24 VI 75-23				LW	L	155		320		SC	PE	597	CBF	SIUDA
	24 VI 75-24						245		320		SC	ID	597	CBF	SIUDA
	24 VI 75-25			V	LW,M	L,K	135		320		SC	PE	597	CBF	SIUDA
	24 VI 75-26						160		320		SC	ID	597	CBF	SIUDA

UTM square group: 16SCS: 6820, 6920, 6819, 1919, 7019, 6918, 7018, 7118, 7017, 7117, 7016, 7116, 7216, 7115, 7215, 7114, 7214.

River Miles 918-922:

BB Pp-199															
29 VI 75-1							95		340		SC	ID	693	MW	SIUDA
29 VI 75-2							125		340		SC	ID	693	MW	SIUDA
29 VI 75-3							150		340		SC	ID	693	MW	SIUDA
BB Pp-200															
29 VI 75-4							155		330		SC	ID	693	MW	SIUDA
29 VI 75-5							170		340		SC	ID	693	MW	SIUDA
BB Pp-201															
29 VI 75-6							190		340		SC	ID	693	MW	SIUDA
BB Pp-202															
29 VI 75-8							45		340		SC	ID	693	MW	SIUDA
BB Pp-203															
29 VI 75-9				V	M	K	50		340		SC	PE	693	MW	SIUDA

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	BB Pp-204														
	29 VI 75-10				M	K	75		340		SC	PE	693	MW	SIUDA
	29 VI 75-11						55		330		SC	ID	693	MW	SIUDA
	BB Pp-205														
	29 VI 75-12						55		330		SC	ID	693	MW	SIUDA
	BB Pp-206														
	29 VI 75-13						50		330		SC	ID	693	MW	SIUDA
	29 VI 75-14						450		340		SC	ID	463b	MW	SIUDA
	BB Pp-209														
	29 VI 75-15						320		330		SC	ID	693	MW	SIUDA
	BB Pp-207														
	29 VI 75-A						105		330		SC	ID	693	MW	SIUDA
	BB Pp-208														
	29 VI 75-B						105		330		SC	ID	693	MW	SIUDA
25D3-02				SBG	M	K	480		340		SC	ID	461b	POF	SIUM
		$Pp^{O}23$	Pp-21	SBG	M	K	250		340			PE	469a	MW	IAS

UTM square group: 16 SCS: 7114, 7214, 7314, 7113, 7213, 7313, 7212, 7312, 7111, 7211, 7311, 7110, 7210, 7109, 7209, 7108, 7208

River Miles 923-927:

	BB Pp-176														
	27 VI 75-12						145		330		SC	ID	597	CBF	SIUDA
	BB Pp-177														
	27 VI 75-13						220		330		SC	ID	597	CBF	SIUDA
	BB Pp-178														
	27 VI 75-14						200		330		SC	ID	597	CBF	SIUDA
		Pp^{V}-22	Pp-20	V	M	K	305		335		SC	PE	469	MW	SIUDA
	BB Pp-116														
	23 VI 75-1	Pp^{V}-31	Pp-30	V	LW	L	480	30	330		SC	PE	597	CBF	SIUDA
	BB Pp-117														
	23 VI 75-2			V	LW	L	780	1	330		SC	PE	597	CBF	SIUDA
	BB Pp-124														
	26 VI 75-1			V	E/MW,M	B,K	795	20	330		SC	PE	597	CBF	SIUDA
	26 VI 75-2			V			750		330		SC	ID	597	CBF	SIUDA
	BB Pp-125														
	26 VI 75-3			V	E/MW,M	B,K	790	25	330		SC	PE	597	CBF	SIUDA
	BB Pp-126														
	26 VI 75-4			V	E/MW,M	B,K	750	20	330		SC	PE	597	CBF	SIUDA
	BB Pp-127														
	26 VI 75-5				LW	L	815		330		SC	PE	597	CBF	SIUDA
	BB Pp-128														
	25 VI 75-6				M	K	760	30	330		SC	PE	597	CBF	SIUDA
	BB Pp-129														
	26 VI 75-7				E/MW,M	B,K	830	25	330		SC	PE	597	CBF	SIUDA

Appendix A (continued)

Site Number							Meters From Bank	Size M² in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
SI[illegible]	SIUDA	YC	IAS	Type	Periods	Culture									
[illegible]	Pp-[illegible]														
[illegible]	VI 72-[illegible]				LW	L	[illegible]30		330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-[illegible]				E/MW,M	B,K	880	25	330		SC	PE	597	CBF	SIUDA
[illegible]	VI 72-[illegible]						850		330		SC	ID	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-4			V	M	K	850	1	330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-5				LW,M	L,K	700	40	330		SC	PE	597	CBF	SIUDA
[illegible]	VI 72-[illegible]						505		330		SC	ID	597	CBF	SIUDA
[illegible]	VI 72-8						455		330		SC	ID	597	CBF	SIUDA
[illegible]	Pp-120														
[illegible]	VI 72-9			F	M	K	430	1	325		SC	PE	597	CBF	SIUDA
[illegible]	Pp-132														
[illegible]	VI 72-10			V	E/MW,M	B,K	700	36	330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-11				LW,M	L,K	700		330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-[illegible]				LW,M	L,K	665	60	330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-[illegible]				M	K	805		330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-3						1300		330		SC	ID	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-4				M	K	1000	50	330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-16			V	M	K	935	25	330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-[illegible]														
[illegible]	VI 72-17			V	M	K	975	1	330		SC	PE	597	CBF	SIUDA
[illegible]	VI 72-18						940		330		SC	ID	597	CBF	SIUDA
[illegible]	VI 72-19						815		330		SC	ID	597	CBF	SIUDA
[illegible]	VI 72-20						810		330		SC	ID	597	CBF	SIUDA
[illegible]	VI 72-21						780		330		SC	ID	597	CBF	SIUDA
[illegible]	Pp-138														
[illegible]	VI 72-22			V	E/MW,M	B,K	785	30	330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-139														
[illegible]	VI 72-23			V	E/MW,M	B,K	815	30	330		SC	PE	597	CBF	SIUDA
[illegible]	VI 72-12						475		330		SC	ID	597	CBF	SIUDA
[illegible]	Pp-134														
[illegible]	VI 72-13			V	E/MW,M	B,K	900		330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-135														
[illegible]	VI 72-14			V	M	K	745		330		SC	PE	597	CBF	SIUDA
[illegible]	Pp-136														
[illegible]	VI 72-15			F	M	K	700		330		SC	PE	597	CBF	SIUDA

Appendix A (continued)

Site Number	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
18 VI 75-10						320		330		SC	ID	597	CBF	SIUDA
18 VI 75-11						490		330		SC	ID	597	CBF	SIUDA
18 VI 75-12			V	LW,M	L,K	400		330		SC	PE	597	CBF	SIUDA
18 VI 75-13						500		330		SC	ID	597	CBF	SIUDA
18 VI 75-14			V	M	K	525		330		SC	PE	597	CBF	SIUDA
18 VI 75-15			C	A	F	500		330		SC	PE	597	CBF	SIUDA
BB Pp-179														
27 VI 73-15			V	M	K	450	100	330		SC	PE	597	CBF	SIUDA
BB Pp-180														
27 VI 73-16				M	K	500	30	330		SC	PE	469	MW	SIUDA
BB Pp-181														
27 VI 73-17						600		330		SC	ID	469	MW	SIUDA
BB Pp-182														
27 VI 73-18				LW,M	L,K	670	40	330		SC	PE	469	MW	SIUDA
BB Pp-183														
27 VI 72-19				E/MW,M	B,K	605	20	330		SC	PE	597	CBF	SIUDA
27 VI 73-20						525		330		SC	ID	597	CBF	SIUDA
BB Pp-184														
27 VI 72-21						705		330		SC	ID	597	CBF	SIUDA
BB Pp-185														
27 VI 73-22						680		330		SC	ID	600	CBF	SIUDA
BB Pp-186														
27 VI 73-23			V	M	K	225	20	330		SC	PE	600	CBF	SIUDA
BB Pp-155														
22 VI 73-6			V	M	K	290	60	330		SC	PE	600	CBF	SIUDA
BB Pp-157														
22 VI 73-9			V	M	K	300	25	330		SC	PE	597	CBF	SIUDA
BB Pp-159														
22 VI 73-15			V			550		335		SC	ID	469	MW	SIUDA
22 VI 73-8				M	K	70		330		SC	PE	597	CBF	SUIDA
BB Pp-158														
22 VI 73-11			V	E/MW	B	300		335		SC	PE	693	MW	SIUDA
BB Pp-158														
22 VI 73-12			V	M	K	400		335		SC	PE	693	MW	SIUDA
BB Pp-158														
22 VI 73-13						400		335		SC	ID	693	MW	SIUDA
BB Pp-158														
22 VI 73-14			V	M	K	350	20	335		SC	PE	693	MW	SIUDA
22 VI 73-16						625		335		SC	ID	469	MW	SIUDA
BB Pp-160														
22 VI 73-17						650		335		SC	ID	469	MW	SIUDA
BB Pp-161														
22 VI 73-18			V			700		335		SC	ID	469	MW	SIUDA
BB Pp-162														
25 VI 73-1						745		335		SC	ID	469	MW	SIUDA

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	25 VI 73-2						815		335		SC	ID	469	MW	SIUDA
	BB Pp-163														
	25 VI 73-3			V			680		335		SC	ID	469	MW	SIUDA
	BB Pp-210														
	25 VI 73-4			V	E/MW	B	620		335		SC	PE	469	MW	SIUDA
	BB Pp-164														
	25 VI 73-5			V	E/MW,M	B,K	600		335		SC	PE	469	MW	SIUDA
	23 VI 73-6						925		335		SC	ID	469	MW	SIUDA
	23 VI 73-8						990		335		SC	ID	469	MW	SIUDA
	BB Pp-165														
	25 VI 73-9						885		335		SC	ID	469	MW	SIUDA
	BB Pp-166														
	25 VI 73-10						765		335		SC	ID	469	MW	SIUDA
	25 VI 73-11						700		335		SC	ID	469	MW	SIUDA
	BB Pp-167														
	25 VI 73-12				E/MW	B	700		335		SC	PE	469	MW	SIUDA
	25 VI 73-13						675		335		SC	ID	469	MW	SIUDA
	25 VI 73-14						340		335		SC	ID	469	MW	SIUDA
	BB Pp-168														
	25 VI 73-15						590		335		SC	ID	469	MW	SIUDA
	BB Pp-166														
	25 VI 73-16			V	M	K	725	12	335		SC	PE	469	MW	SIUDA
	BB Pp-169														
	25 VI 73-17			V	M	K	650		335		SC	PE	469	MW	SIUDA
	BB Pp-169														
	25 VI 73-18			V			715		335		SC	ID	469	MW	SIUDA
	BB Pp-170														
	25 VI 73-19				E/MW	B	760	30	335		SC	PE	469	MW	SIUDA
	BB Pp-171														
	25 VI 73-21				LW,M	L,K	965	40	335		SC	PE	469	MW	SIUDA
	25 VI 73-22						1000		335		SC	ID	469	MW	SIUDA
	BB Pp-101														
	10 VI 69				A	F	760		335		SC	PE	469	MW	SIUDA
	26 VI 73-1						915		335		SC	ID	469	MW	SIUDA
	BB Pp-173														
	26 VI 73-2						975		335		SC	ID	469	MW	SIUDA
	BB Pp-174														
	26 VI 72-3			V	M	K	1000	1	335		SC	PE	469	MW	SIUDA
	BB Pp-175														
	27 VI 73-11			V	M	K	105	40	335		SC	PE	597	CBF	SIUDA
		Pp^{V}-11	Pp-20A	V	M	K	310		335		SC	PE	469	MW	SIUDA
			Pp-20C	V	M	K	325		335		SC	PE	469	MW	SIUDA
	22 VI 72-7						55		335		SC	ID	597	CBF	SIUDA
	BB Pp-156														
	22 VI 73-7			V	M	K	155		330		SC	PE	597	CBF	SIUDA

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
25D3-09							530		335		SC	ID	597	CBF	SIUDA
25D3-08					A,E/MW	F,B	550		335		SC	E	597	CBF	SIUDA
UTM square group: 16 SCS: 7009, 7109, 7008, 7108, 7007, 7107, 6906, 7006, 7106, 6805, 6905, 7005, 6704, 6804, 6904, 6703, 6803, 6903.															
River Miles 928-932:															
24C4-02	IV 71-1		Mx-66	V	M	K	600	100	330	1.3m	CSC,E	E	597	CBF	IAS,SIUDA
24C4-06	IV 71-2		Mx-66	V	M	K	640	50	330		SC	E	597	CBF	IAS,SIUDA
	IV 71 3	Mx^{O}-13	Mx-57	SBG	M	K	460		325		SC	PE	597	CBF	IAS,SIUDA
	IV 71-4	Mx^{V}-24	Mx-55	V	M	K	900	30	325		SC	PE	597	CBF	IAS,SIUDA
	IV 71-5	Mx^{O}-14	Mx-58	V	M	K	570	50	325		SC	PE	600	CBF	IAS,SIUDA
	IV 71-6	Mx^{O}-14	Mx-58	V	M	K	640	25	325		SC	PE	600	CBF	IAS,SIUDA
	IV 71-7	Mx^{O}-14	Mx-58	V	M	K	610	30	325		SC	PE	600	CBF	IAS,SIUDA
	BB Mx-111														
	24 IV 71-8						825	40	325		SC	ID	600	CBF	SIUDA
	BB Mx-112														
	IV 71-9			V	C/MW,M	B,K	640		325		SC	PE	600	CBF	SIUDA
	BB Mx-145														
	6 VIII 71-1			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-146														
	6 VIII 71-2			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-147														
	6 VIII 71-3			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-148														
	6 VIII 71-4			F	M	K	810	12	330	.92m	CSC,E	E	597	CBF	SIUDA
	BB Mx-113														
	15 V 71-1	Mx^{V}-23	Mx-59	F	M	K	760	30	325		SC	PE	597	CBF	IAS,SIUDA
	15 V 71-2	Mx^{V}-12	Mx-56				615		325		SC	ID	597	CBF	IAS,SIUDA
	28 VI 72-28						925		330		SC	ID	597	CBF	SIUDA
	28 VI 72-29			V	M	K	900		300		SC	PE	597	CBF	SIUDA
	BB Mx-184														
	22 VI 72-17						645		325		SC	ID	597	CBF	SIUDA
	22 VI 72-18			V	LW,M	L,K	465		320		SC	PE	597	CBF	SIUDA
	BB Mx-185														
	22 VI 72-19			V	LW,M	L,K	500		330		SC	PE	597	CBF	SIUDA
	BB Mx-186														
	22 VI 72-20			V	LW,M	L,K	455		330		SC	PE	597	CBF	SIUDA
	BB Mx-187														
	22 VI 72-16						475		320		SC	ID	597	CBF	SIUDA
	BB Mx-191														
	27 VI 72-1				A,E/MW	F,B	1000		330		SC	E	597	CBF	SIUDA
UTM square group: 16SCS: 6005, 6105, 6004, 6104, 6204, 6304, 6404, 6504, 6604, 6704, 6103, 6203, 6303, 6403, 6503, 6603, 6703.															

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	AS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
River Miles 933-937:															
24C4-54	BB Mx-114														
	23 VI 71-1				M	K	390	60	330		SC	PE	597	CBF	SIUDA
	BB Mx-155														
	23 VI 71-2				A,E/MW,M	F,B,K	450	150	330		SC	E	597	CBF	SIUDA
	BB Mx-115														
	23 VI 71-3						520	50	330		SC	ID	597	CBF	SIUDA
	BB Mx-116														
	23 VI 71-4				A	F	330		330		SC	PE	597	CBF	SIUDA
	BB Mx-116														
	23 VI 71-5				A	F	300		330		SC	PE	597	CBF	SIUDA
	BB Mx-116														
	23 VI 71-6				A	F	300		330		SC	PE	597	CBF	SIUDA
24C4-04	BB Mx-117														
	23 VI 71-7		Mx-64		A,E/MW,M	F,B,K	430	170	330		SC	E	597	CBF	IAS,SIUDA
	BB Mx-118														
	23 VI 71-8				A	F	320		330		SC	PE	600	CBF	SIUDA
	BB Mx-118														
	23 VI 71-9				A	F	250		330		SC	PE	600	CBF	SIUDA
	BB Mx-119														
	23 VI 71-10				A	F	450		330		SC	PE	597	CBF	SIUDA
	BB Mx-118														
	23 VI 71-11				A	F	330		330		SC	PE	600	CBF	SIUDA
	BB Mx-140														
	30 VI 71-1				LW,M	L,K	750	25	330		SC	PE	597	CBF	SIUDA
	BB Mx-140														
	30 VI 71-2				M	K	680	30	330		SC	PE	597	CBF	SIUDA
	BB Mx-140														
	30 VI 71-3				A,M	F,K	630	40	330		SC	PE	597	CBF	SIUDA
	BB Mx-141														
	30 VI 71-4				M	K	580	30	330		SC	PE	597	CBF	SIUDA
	BB Mx-142														
	30 VI 71-5				M	K	880	25	330		SC	PE	597	CBF	SIUDA
	BB Mx-143														
	30 VI 71-6						1000	25	330		SC	ID	597	CBF	SIUDA
	BB Mx-135														
	29 VI 71-6			V	LW,M	L,K	1000		325		SC	PE	597	CBF	SIUDA
	BB Mx-136														
	29 VI 71-7			V	M	K	1000	40	325		SC	PE	597	CBF	SIUDA
	BB Mx-137														
	29 VI 71-8			V	LW,M	L,K	970	25	325		SC	PE	597	CBF	SIUDA
	BB Mx-138														
	29 VI 71-9			V	E/MW,M	B,L,K	860	100	325		SC	E	597	CBF	SIUDA

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	BB Mx-144 30 VI 71-7			V	LW,M	L,K	700	30	325		SC	PE	597	CBF	SIUDA
	BB Mx-144 30 VI 71-8			V	LW,M	L,K	780	40	325		SC	PE	597	CBF	SIUDA
	BB Mx-149 8 IV 72-1			V	M	K	990	30	330		SC	PE	597	CBF	SIUDA
	BB Mx-150 8 IV 72-3			V	M	K	890	25	325		SC	PE	597	CBF	SIUDA
	8 IV 72-4				M	K	880		325		SC	ID	597	CBF	SIUDA
	BB Mx-151 8 VI 72-5			V	M	K	860	20	325		SC	PE	597	CBF	SIUDA
	8 VI 72-6				M	K	980		325		SC	PE	597	CBF	SIUDA
	8 VI 72-7				M	K	1000		325		SC	PE	597	CBF	SIUDA
	BB Mx-152 8 VI 72-8			V	M	K	1000	40	330		SC	PE	597	CBF	SIUDA

UTM square group: 16SCS: 5410, 5510, 5610, 5409, 5509, 5609, 5709, 5708, 5808, 5908, 5707, 5807, 5907, 6007, 5806, 5906, 6006, 5906, 6005, 6105, 6004.

River Miles 938-942:

25C4-11			V	HI	HI	50		330		SC	NR	597	CBF	SIUM
25C4-12		Mx-83	V	HI	HI	10		330		E	NR	597	CBF	IAS,SIUM
25C4-13			V	HI	HI	10	225	330		SC	NR	597	CBF	SIUM
25C4-71			V	M	K	300	41	330		SC	PE	463	MW	SIUM
25C4-08		Mx-80	V	A	F	320	10	330			PE	460	POF	IAS,SIUM
25C4-67		Mx-159				80		330			PE	461	POF	IAS,SIUM
25C4-14		Mx-84				590	750	340		SC	ID	460	POF	IAS,SIUM
25C4-15		Mx-86	V	M	K	100	1875	330		E	PE	597	CBF	IAS,SIUM
25C4-16		Mx-87	C	A	F	210	41	330		SC	PE	693	MW	IAS,SIUM
25C4-28		Mx-99	C	A	F	1000		340			PE	460	POF	IAS,SIUM
25C4-66		Mx-158				300		330			ID	463c	MW	IAS,SIUM
25C4-74		Mx-69	C	A	F	400		330		E,D	PE	462	MW	IAS,SIUM
25C4-17		Mx-88	C	A	F	100	7500	330		SC	PE	597	CBF	IAS,SIUM
25C4-18		Mx-89	C	A,E/MW	F,B	200	20	320		SC	E	597	CBF	IAS,SIUM
25C4-19		Mx-90	C	A,M	F,K	100		330		SC	PE	597	CBF	IAS,SIUM
25C4-20		Mx-91	C	A	F	100	41	330		SC	PE	693	MW	IAS,SIUM
25C4-21		Mx-92	C			480	41	330		SC	ID	461	POF	IAS,SIUM
25C4-22		Mx-93	C	A	F	520	3025	330		SC	PE	462	POF	IAS,SIUM
25C4-05		Mx-65		A,M	F,K	420		320			PE	461	POF	IAS,SIUM
25C4-23		Mx-94	C	A	F	510	10	330		SC	PE	462	POF	IAS,SIUM
25C4-24		Mx-95	C	A	F	1000	30	330		SC	PE	462	MW	IAS,SIUM
25C4-25		Mx-96	C	A	F	900		330		SC	PE	462	MW	IAS,SIUM
25C4-26		Mx-97	C	A	F	480		330		SC	PE	463	MW	IAS,SIUM
25C4-27		Mx-98	C	A	F	900		330		SC	PE	460	MW	IAS,SIUM
25C4-07		Mx-67	SBG	M	K	230	41	320		E	PE	597	CBF	IAS,SIUM

Appendix A (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
UTM square group: 16SCS: 4712, 4812, 4912, 5012, 5112, 4611, 4711, 4811, 4911, 5011, 5111, 5211, 5311, 5110, 5210, 5310, 5410.															
River Miles 943-947:															
25C4-56			Mx-136				180		330			ID	600	CBF	IAS,SIUM
25C4-57			Mx-137				120		330			ID	693	CBF	IAS,SIUM
UTM square group: 16SCS: 4016, 4116, 4216, 4316, 4115, 4215, 4315, 4415, 4214, 4314, 4414, 4313, 4413, 4513, 4412, 4512, 4612, 4712, 4611.															
River Miles 948-952: no sites recorded for this section.															
UTM square group: 16SCS: 3320, 3420, 3520, 3319, 3419, 3519, 3619, 3719, 3518, 3618, 3718, 3818, 4018, 3717, 3817, 3917, 4017, 4117, 4016, 4116.															
River Miles 953-957: no sites recorded for this section.															
UTM square group: 16SCS: 2523, 2623, 2522, 2622, 2722, 2822, 2922, 3022, 3122, 2721, 2821, 2921, 3021, 3121, 3221, 3321, 3020, 3120, 3220, 3320, 3420, 3319.															
River Miles 958-962: no sites recorded for this section.															
UTM square group: 16SCS: 2423, 2523, 2122, 2222, 2322, 2422, 2522, 1921, 2021, 2221, 2321, 2421, 1820, 1920, 2020, 2120, 1719, 1819, 1919, 1818.															
River Miles 963-967: no sites recorded for this section.															
UTM square group: 16SCS: 1719, 1819, 1618, 1718, 1818, 1517, 1617, 1717, 1416, 1516, 1315, 1415, 1515, 1214, 1314, 1414, 1213, 1313, 1413, 1212, 1312.															
River Miles 968-972: no sites recorded for this section.															
UTM square group: 16SCS: 1212, 1312, 1111, 1211, 1311, 1010, 1110, 1210, 0909, 1009, 1109, 1209, 0808, 0908, 1008, 0707, 0807, 0907, 0806.															
River Miles 973-977:															
24D4-02			Pu-23	M,V	M		300	1500	310		D	PE			IAS,SIUM
24D4-66				M	LW		200	5000	320			PE	306	CBF	SIUM
24D4-67				V			130	900	319			ID	306	CBF	SIUM
24D4-68				V	LW		130	625	319			PE	306	CBF	SIUM
24D4-69				V	LW		640	300	319			PE	452	MW	SIUM
24D4-29				M	M		600	14	320			E	462	MW	SIUM
UTM square group: 16SCS: 0707, 0807, 0606, 0706, 0806, 0605, 0705, 0504, 0604, 0704, 0503, 0603, 0402, 0502, 0602, 0401, 0501, 0400, 0500. 16SCR: 0599, 0699, 0598, 0698.															

Appendix A (continued)

Site Number															
SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records

River Miles 978-982: no sites recorded for this section.

UTM square group: 16SCR: 0598, 0698, 0597, 0697, 0797, 0696, 0796, 0896, 0695, 0795, 0895, 0794, 0894, 0994.

APPENDIX B

HISTORIC SITES NEAR THE OHIO RIVER IN ILLINOIS

Gallatin County

River Mile 848 (On the Little Wabash River near New Haven):

Ga-1	Jonathan Boone's Mill	Site of mill built in 1800 by Daniel Boone's brother
Ga-2	Graddy Hotel	Built in 1859, stop on Shawneetown-Vincennes stage route

River Mile 857 (Old Shawneetown):

Ga-3	Stephen Rowan House	Built in 1832 by local businessman
Ga-4	Methodist Church	Built in 1842; restored, occupied
Ga-5	William Docker House	Built in 1838; first mayor, restored, occupied
Ga-6	George Pillow House	Built in 1860, lawyer
Ga-7	William Jachmier House	Built ca. 1811; oldest home in Shawneetown
Ga-8	Henry Peeples Home	Built in 1870's, postmaster
Ga-9	Robert Peeples Home	Built ca. 1817-20, third brick house in town
Ga-10	Old State Bank	Built in 1838, Greek Revival style; in process of restoration
Ga-11	Rawlings Hotel	Built in 1821; Lafayette stayed here
Ga-12	Michael Jones Building	Built in 1835

River Mile 858 (Old Shawneetown):

Ga-13	John Marshall House	Built ca. 1815-25; reconstructed, used as a museum, first bank in Shawneetown

River Mile 859 (Old Shawneetown vicinity):

Ga-14	Bowlesville	Site of early town

River Mile 863 (Equality Vicinity on Saline River):

Ga-15	U. S. Salines	Used by Indians and French, U. S. owned until 1818, major source of salt west of Alleghenies
Ga-16	John Crenshaw Mansion	Built in 1842, Greek Revival style; Crenshaw owned salt springs, became wealthy salt king
Ga-17	Half Moon Lick	Salt spring, produced salt until 1873; used by prehistoric animals, Indians; U. S. owned until 1818
Ga-18	Equality Opera House	19th Century opera house
Ga-19	General Lawler Monument	Monument to Civil War general

River Mile 867 (Equality vicinity):

Ga-20	Saline Landing	Early commercial landing

Hardin County

River Mile 871:

Hr-1	Sellar's Landing	Old commercial landing, Illinois frontier period (1780-1818)

River Mile 877:

Hr-2	Old Ford's Ferry	Site of old river ferry
Hr-3	Frailly House and outbuilding	Old residence

River Mile 880 (Cave-in-Rock):

Hr-4	Cave-in-Rock Cave	Natural wonder and outlaw hideout, commercial landing; Illinois frontier period (1780-1818)

River Mile 881 (Cave-in-Rock):

Hr-5	House	Old residence, occupied
Hr-6	House	Old residence, occupied
Hr-7	House	Old residence, occupied

Hr-8	House	Old residence, occupied
Hr-9	House	Old residence, occupied
Hr-10	House	Old residence, occupied
Hr-11	House	Old Masonic lodge, present use commercial
Hr-12	Jail	Early jail

River Mile 887 (Elizabethtown vicinity):

Hr-13	House	Old residence, occupied

River Mile 888 (Elizabethtown):

Hr-14	Two-story brick building	Old residence, unoccupied
Hr-15	Miller's Block	Old commercial establishment, occupied, built in 1876
Hr-16	Two-story wooden residence	Old residence, occupied
Hr-17	First Baptist Church	Old Church, built in 1877
Hr-18	First Baptist Parsonage	Old residence, occupied
Hr-19	Building	Occupied
Hr-20	House	Old residence, occupied
Hr-21	House	Old residence, occupied
Hr-22	Building	Occupied
Hr-23	I.O.O.F. Hall	Present use commercial
Hr-24	House	Old residence, occupied
Hr-25	Hardin County courthouse and war memorial	Built in 1923, present use governmental
Hr-26	Methodist Church	Early church, Illinois frontier period (1780-1818)
Hr-27	Rose Hotel	Built in 1812, oldest Illinois hotel in continuous operation; important stopping point for riverboats and land travellers

River Mile 891 (Rosiclare):

Hr-28	General Baptist Church	Old church, occupied
Hr-29	Fire Department Building	Present use governmental

River Mile 893 (Rosiclare):

Hr-30	Steel Cemetary	Old cemetary, Illinois early period (1818-1850)

Pope County

River Mile 902 (Golconda):

Po-1	Brick house	Old residence, occupied
Po-2	Sara Lusk Monument	Erected 1928 to pioneer founder of Golconda, operator of early ferry
Po-3	Greek Revival house	Old residence, occupied
Po-4	Store building	Old commercial building
Po-5	Mill	Early commerical mill, now abandoned
Po-6	House	Old residence, vernacular architecture
Po-7	House	Old residence, Italianate architecture
Po-8	Opera House	Typical small town opera house; present use commercial
Po-9	House	Old residence, 19th Century, unoccupied
Po-10	First Presbyterian Church	Brick church, built in 1920's
Po-11	House	Old residence, 19th Century
Po-12	Our Redeemer Lutheran Church	Old church, good condition
Po-13	Italianate mansion	Old residence, architectural significance
Po-14	Riverview Mansion Hotel	Old river hotel, occupied
Po-15	House	Old residence, colonial style

Po-16	House	Old residence, architectural significance, occupied
Po-17	T. Abbot Building	Old commercial building
Po-18	Commercial buildings	Old commercial district, occupied
Po-19	Pope County Jail	Good example of rural jail architecture
Po-20	Pope County courthouse	Built in 1872, architectural and historical significance
Po-21	Commercial buildings	Several early commercial buildings together in a district, all in good condition, occupied
Po-22	Pope County Historical Society Museum	Former residence, converted to museum, restored
Po-23	Cook Building	Brick commercial building, occupied

River Mile 907 (Golconda vicinity):

Po-24	Roper's Landing	Early commercial landing
Po-25	House	Old residence, occupied

River Mile 908 (Tansill vicinity):

Po-26	House	Old residence, unoccupied
Po-27	Bridge	Original bridge over Bay Creek, built in 1897; important for local traffic and interesting for its engineering features

River Mile 910 (Bay City):

Po-28	Old School	Early school

River Mile 911 (Bay City):

Po-29	Two-story store building	Early commercial building
Po-30	Bay City Store	Old commercial building, unoccupied
Po-31	Log cabin	Early example of a log cabin, unoccupied
Po-32	Friendship Lodge	Fraternal lodge

River Mile 920 (Hamletsburg vicinity):

Po-33	Log barn	Early log barn, poor condition
Po-34	House on hill	Old residence, occupied

River Mile 921 (Hamletsburg):

Po-35	Log barn	Early log barn, poor condition
Po-36	Building with spire	Old (school?) building, unoccupied
Po-37	Baptist Church	Old church, 19th Century, occupied
Po-38	Post Office	Early 19th Century post office, still in use

Massac County

River Mile 928:

Mc-1	Kincaid Mounds	Prehistoric archaeological site

River Mile 937 (Brookport):

Mc-2	Public Park	Old steamboat bell, World War II memorial

River Mile 942 (Metropolis):

Mc-3	Fort Massac	French and American fort, 1765-1815

River Mile 943 (Metropolis):

Mc-4	Front Street Park	Wilcox home site, old ferry site; Illinois early period (1818-1850)
Mc-5	Massac County Courthouse	Architectural significance, political; Illinois middle period (1850-1900) and late period (1900-present); first built in 1862
Mc-6	Virginia Trousdale Home	Built by shipbuilder prior to Civil War; largest magnolia tree in state, occupied
Mc-7	Elijah P. Curtis Home	Built after Civil War, ca. 1866-67, occupied by Civil War Lt. Colonel

Mc-8	Ingersoll School Site	Site of a log cabin where Robert Ingersoll taught school, Illinois middle period (1850-1900)
Mc-9	Elliot Brothers Furniture Store	Founded and built in 1872, oldest existing business in Massac County
Mc-10	Masonic Lodge Hall	Built in 1894 as an opera house, became Masonic Lodge Hall; architectural significance, present use commercial
Mc-11	Metropolis Library	Carnegie Library, built in 1914
Mc-12	Memorial Park	War memorials
Mc-13	Band shell, public park	Architectural significance, ca. 1900
Mc-14	C. C. Roberts home	Old residence, occupied, mid-Victorian architecture, ca. 1900
Mc-15	Cedar home	Built in 1848, served as schoolhouse, Robert Ingersoll taught here in 1852

River Mile 951 (Joppa):

Mc-16	Joppa Christian Church	Built in 1894; church bell formerly a steamboat bell

Pulaski County

River Mile 957:

Pu-1	VaBache	Site of Sir Charles Juchereau de St. Denys' tannery, 1702; early French settlement, site of Indian massacre

River Mile 958:

Pu-2	Cantonment Wilkinson	Established 1797 by Lt. Colonel David Strong under General James Wilkinson; built to disrupt Spanish plots in area, abandoned in 1807 after Louisiana Purchase decreased its strategic value

River Mile 959:

Pu-3	Grand Chain Landing	Site of old commercial landing

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CULTURAL RESOURCES OF THE OHIO RIVER FLOODPLAIN IN ILLINOIS,(U)
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River Mile 965 (Olmstead vicinity):

Pu-4	Caledonia Courthouse	Site of courthouse built in 1843, collapsed in early 1900's
Pu-5	Caledonia Landing	Site of early river port
Pu-6	Justus Post House	Built in 1828 by Justus Post, proprietor of the Caledonia trust, occupied

River Mile 968:

Pu-7	America site	Early town site

River Mile 973 (Mound City):

Pu-8	Lowell School	Built in 1885, addition in 1920
Pu-9	Mound City Railroad Depot	Built in the late 1850's, used to ship men and materials to Marine Ways
Pu-10	Marine Ways	Built in 1855 by Emporium Real Estate Manufacturing Co.; leased 1861-63 by Capt. W. C. Hambleton to U. S. Government for ship construction for Mississippi squadron during Civil War; 1963-74 Government possession, then returned to city
Pu-11	House	Old residence, Italianate style
Pu-12	House	Old residence, Italianate style
Pu-13	Civil War Hospital	Large warehouse converted into a military hospital in 1861, staffed during Civil War by Sisters of the Holy Cross; partially destroyed by fire in 1976
Pu-14	St. Peter's Episcopal Church	Built in 1866, occupied
Pu-15	St. Charles Hotel	Built in 1850's; reputed to be headquarters for U. S. Grant before move to Cairo; James B. Eads (gunboat designer) also lived here
Pu-16	St. Mary's Catholic Church	Built in 1892, restored after 1937

Pu-17	Pulaski County Courthouse	Built in 1912, damaged in flood of 1937, remodeled again in 1964
Pu-18	Mound City Public Park	World War II memorial; old fire bell used at Marine Ways during Civil War
Pu-19	Mound City National Cemetary	Established 1864 as a National Shrine, burial place for 5,000 Union soldiers

River Mile 974:

Pu-20	Trinity Site	Site of old river port

Alexander County

River Mile 977:

Al-1	Future City	Post Civil War black community
Al-2	Illinois Central Railroad bridge	Begun in 1886, engineering feat; closed last transportation gap between Chicago and New Orleans; was longest bridge in U. S. and, for a while, the world

River Mile 978 (Cairo):

Al-3	St. Mary's Park and Theodore Roosevelt Bandstand	Early public park, 1965; President Roosevelt spoke in bandstand in October, 1907
Al-4	Magnolia Manor	Charles A. Galigher home, 1968-72; U. S. Grant visited there in 1880; architectural significance; museum
Al-5	Riverlore or Rendleman Home	W. P. Halliday home, built in 1865, occupied, architectural significance
Al-6	Herbert Home	Built in 1876 by Tom Halliday, occupied; architectural significance
Al-7	Lansden Park (Candee Park)	Civil War gun, flagpole from Civil War steamer Tigris

A1-8	Warder home	Built by early Supreme Court Justice David Baker, one of oldest homes in Cairo
A1-9	Immanuel Lutheran Church	Built in 1896, occupied

River Mile 979 (Cairo):

A1-10	First Presbyterian Church	Built in 1896, occupied
A1-11	Cairo Public Library	Built in 1883, originally called A. B. Safford Memorial Library; bronze art works, stained glass windows, crystal chandelier from Cairo Opera House (1880); one of the finest collections of Civil War original material in Midwest
A1-12	Customs House, Police Headquarters	Built in 1869-72, designed by A. B. Mullet, supervising architect for U. S. Treasury, architectural significance; built when Cairo had a surveyor of the port, and river produce came directly to Cairo for customs duties. Also Post Office and Federal Court
A1-13	St. Patrick's Roman Catholic Church	First building (1883) on levee; was first church in Cairo; present building built in 1894; architectural significance
A1-14	The Hewer	Sculpted by George Gray Bernard in 1901, exhibited at World's Fair in St. Louis in 1904, presented City of Cairo in 1906. Listed by Lorado Taft in 1910 as one of the world's ten finest nudes
A1-15	Mayor Oscar Woods Home	Built in 1870's by Capt. Edwin Halliday of Confederate Army; Victorial architecture, occupied
A1-16	Maud's House	Home of author Maud Rittenhouse; Illinois Middle period (1980-1900)
A1-17	Reed Green Home	Carefully restored Victorian mansion, built in 1860's, designed by

		J. C. Cochrane, architect for first capital of Illinois; home of Judge William Green, state representative and senator
Al-18	Church of the Redeemer	Built in 1858-62, served as Civil War Hospital, bell made of 500 silver dollars donated by crew of James Montgomery, sunk above Cairo. Bell salvaged and given to church
Al-19	St. Charles Hotel	Built in 1855, used as living quarters for General Grant and Admiral Foote when Union troops stationed at Cairo. Original structure razed but annex built in 1890's remains

River Mile 980 (Cairo):

Al-20	Fort Defiance	At confluence of Mississippi and Ohio rivers; observation point for George Rogers Clark; Civil War fort

Summary: Ohio River Historic Sites in Illinois

Type:	Number:
Home	52
Commercial Building	28
Historic Site	21
Government Building	19
Church	13
Monument or Park	9
Total Historic Sites	142

Sites on the National Register of Historic Places:

Ga-10	Old State Bank	Shawneetown
Ga-15	U. S. Salines	Equality
Ga-13	John Marshall House Site	Shawneetown
Hr-27	Rose Hotel	Elizabethtown
Mc-1	Kincaid Mounds	Black Bottom
Mc-3	Fort Massac	Metropolis
Pu-13	Civil War Hospital	Mound City
Al-4	Magnolia Manor	Cairo
Al-12	Customs House	Cairo

Registered National Historic Districts:

Mound City, Illinois
Golconda, Illinois

Districts Nominated:

Shawneetown, Illinois
Cairo, Illinois (will include over 1,000 structures)

Districts in Consideration:

Metropolis, Illinois

APPENDIX C

Additional Archaeological Sites Near the Ohio River in Illinois and Further than One Kilometer from the River Bank

Site Number							Meters From	Size M^2 in				Nat.			
SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Bank	100's	Elev.	Depth	Cond.	Reg.	Soil	Veg.	Records
River Miles 848-852:															
25B2-07			G-18	C	A		2700	320	350		SC	PE	426	DS	IAS,SIUM
25B2-08			G-16	C	E/MW		2750	40	350		E	E	469	MW	IAS,SIUM
25B2-09			G-19	EM,V	LW,M	WVH	2950	40	350		SC	E	469	MW	IAS,SIUM
25B2-12			G-46	V	M		2200	80	350		SC	E	469	MW	IAS,SIUM
25B2-13			G-45	C			2600	20	350		SC	ID	461	MW	IAS,SIUM
25B2-14			G-44	V	E/MW,LW,M		2300	120	350		SC	E	469	MW	IAS,SIUM
25B2-15			G-43	V,B	E/MW,LW,M		2050	200	350		SC	E	469	MW	IAS,SIUM
25B2-17			G-68	C	A		3150	40	350		SC	PE	461	MW	IAS,SIUM
25B2-18			G-69	C	W		2950	80	350		SC	PE	469	MW	IAS,SIUM
25B2-19			G-70	C			2300	80	350		SC	ID	469	MW	IAS,SIUM
25B2-05			G-17	EM	E/MW	WVH	5500		400		SC	E	308	MWF	IAS,SIUM
25B2-41			G-109	C	A		5000	20	350		SC	PE	469	MW	IAS,SIUM
25B2-42			G-110	C	A		5100	200	350		SC	PE	469	MW	IAS,SIUM
River Miles 853-857:															
25B4-21			G-38	V	M		3150	40	360		SC	PE	75	MW	IAS,SIUM
25B4-23			G-53	C	M		2900		350		SC	PE	131	MW	IAS,SIUM
25B4-24			G-52	V	W		2850	200	350		SC	PE	462	MW	IAS,SIUM
River Miles 858-862:															
25B4-07			G-11				1700		380			ID	75	MW	IAS,SIUM
25B4-25			G-47	V	A		2700	600	520		SC	PE	308	MUF	IAS,SIUM
25B4-26			G-48	C			3500	80	400		SC	ID	37	MW	IAS,SIUM
25B4-27				B			2150	20	500			ID	308	MUF	IAS,SIUM
River Miles 863-867:															
25B4-02			Hn-3	EM	MW		3450	20	520		E	E	308	UF	IAS,SIUM
25B4-03			Hn-4	C	A		3150	200	400		SC	PE	308	MUF	IAS,SIUM
25B4-04			Hn-5	C,V	MW		2750		400		E	E	723	CBF	IAS,SIUM
25B4-06			Hn-26				2450		380			ID	723	CBF	IAS,SIUM
25B4-63			Hn-6	EM	MW		3300		520		E	E	308	UF	IAS,SIUM
25B4-42			G-83	C	A		2100		340			PE	461	MW	IAS,SIUM
25B4-43			G-84	C	A		2175	40	340		SC	PE	462	MW	IAS,SIUM
25B4-45			G-86	C	A		1150		340		SC	PE	190	MW	IAS,SIUM
25B4-46			G-87	C	A		1500		340		SC	PE	461	MW	IAS,SIUM
25B4-47			G-88	V	A		1975	160	350		SC	PE	469	MW	IAS,SIUM
25B4-19			G-29	C	A		2600	20	350		SC	PE	461	MW	IAS,SIUM

Appendix C (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
River Miles 868-872: no other sites recorded in this section.															
River Miles 873-877: no other sites recorded in this section.															
River Miles 878-882: no other sites recorded in this section.															
River Miles 883-887:															
25D1-367							265		370			ID	382	USB	SIUM
25D1-259							1230		350			ID	308	MUF	IAS,SIUM
25D1-39			Hn-25	C	A		1950		370		SC	PE	214	MUF	IAS,SIUM
River Miles 888-892:															
25D1-36			Hn-28				1600		350			ID	461	MUF	IAS,SIUM
25D1-37			Hn-29				1970		350			ID	461	MUF	IAS,SIUM
25D1-38			Hn-27				1580		350			ID	462	MUF	IAS,SIUM
25D1-45			Hn-37				1960		350			ID	461	MUF	IAS,SIUM
River Miles 893-897:															
25D1-22			Hn-11				1200		420				955f	UF	IAS,SIUM
River Miles 898-902: no other sites recorded in this section.															
River Miles 903-907: no other sites recorded in this section.															
River Miles 908-912:															
25C2-62			Pp-99	SBG	M		1200	10	410		D	PE	460	POF	
25C2-49			Pp-70				2340	20	570			ID	986f	UF	
25C2-116			Pp-107				2520		550			ID	214	POB	
25C2-48			Pp-71				3000		580		SC	ID	214	POB	
25C2-67			Pp-127	C	A		1350		340		SC	PE	460	MW	
25C2-136			Pp-158				3100		345			ID	461	MW	
25C2-50			Pp-69	C	A		2180	120	350		SC	PE	131	POF	
25C2-51			Pp-68	C	A		1800	160	350			PE	175	POF	
25C2-52			Pp-67	C	A		1620	40	350		SC	PE	175	POF	
25C2-111			Pp-91				1130		350		SC	ID	463	MW	
River Miles 913-917: no other sites recorded in this section.															
River Miles 918-922: no other sites recorded in this section.															

Appendix C (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
River Miles 923-927:															
BB Pp-110															
21 VI 73-T1					A	F	2210		340		SC	PE	462	MW	SIUDA
BB Pp-111															
23 VI 71-T2					A	F	2780		340		SC	PE	462	MW	SIUDA
BB Pp-112															
23 VI 71-T3					A,E/MW	F,B	3010		340		SC	E	175	CB	SIUDA
BB Pp-113															
24 VI 71-2					E/MW,M	B,K	2360	25	325		SC	PE	693	MW	SIUDA
		Pp^{O}-17	Pp-15	EM,V	M	K	1880		330		SC	PE	469	MW	IAS
		Pp^{O}-18	Pp-16		A	F	1490		325		SC	PE	469	MW	IAS
		Pp^{O}-19	Pp-17	EM			1210		325		SC	E	469	MW	IAS
		Pp^{O}-20	Pp-18	C	M	K	1010		325		SC	PE	469	MW	IAS
BB Pp-105															
V 71-9				V	M	K	1590	30	325		CSC,E	PE	597	CBF	SIUDA
BB Pp-106															
V 71-10							1280		325		SC	ID	597	CBF	SIUDA
BB Pp-107															
V 71-11				V	M	K	1160	25	330		SC	PE	598	CBF	SIUDA
BB Pp-108															
V 71-12				V	M	K	1140	25	330		SC	PE	597	CBF	SIUDA
BB Pp-109															
V 71-13				SBG	M	K	1110	25	330		SC	PE	597	CBF	SIUDA
BB Mx-120															
24 VI 71-4					E/MW	F,B	2400		335		SC	E	469	MW	SIUDA
30 VI 72-21							3800		345		SC	ID	462	MW	SIUDA
30 VI 72-22							3900		345		SC	ID	462	MW	SIUDA
28 VI 73-15							2450		340		SC	ID	463	MW	SIUDA
BB Pp-194															
28 VI 73-16					M	K	2400		340		SC	PE	463	MW	SIUDA
BB Pp-195															
28 VI 73-22				V	M	K	1700	5	345		SC	PE	463	MW	SIUDA
BB Pp-196															
28 VI 73-23							1600		345		SC	ID	463	MW	SIUDA
BB Pp-197															
28 VI 73-24							1550		345		SC	ID	463	MW	SIUDA
BB Pp-198															
28 VI 73-25							1900		345		SC	ID	463	MW	SIUDA
28 VI 73-26							2040		345		SC	ID	463	MW	SIUDA
BB Pp-121															
23 VI 72-10					A	F	1520		345		SC	PE	463	MW	SIUDA
23 VI 72-11							1655		345		SC	ID	462	MW	SIUDA
BB Pp-122															
23 VI 72-12					A	F	1430		345		SC	PE	462	MW	SIUDA

Appendix C (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	23 VI 72-13				A	F	1420		345		SC	PE	463	MW	SIUDA
	23 VI 72-14				A	F	1400		345		SC	PE	462	MW	SIUDA
	28 VI 73-10						2250		340		SC	ID	462	MW	SIUDA
		Pp^{o}-12	Pp-12	EM	M	K					SC	E	469	MW	IAS
		Pp^{v}-13		V	E/MW,LW,M	B,L,K					SC	E	469	MW	IAS
		Pp^{o}-14	Pp-13	SBG	M	K					E	PE	693	MW	IAS
		Pp^{v}-15	Pp-14	EM	M	K	1900				SC	PE	693	MW	IAS
		Pp^{o}-16	Pp-12	EM,V	M	K					SC	E	597	CBF	IAS

NOTE: The remaining site designations of this river mile section all refer to the Kincaid Site. Site area estimates are from 330-940 meters^2 x 100 occupied area.

25D3-03		Mx^{v}1-A	Mx-1	T	E/MW,M	B,K	1300		330	2.1	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{v}1-A,1941	Mx-1	T	E/MW,M	B,K	1300		330	0.6	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{v}1-B	Mx-1	T	E/MW,M	B,K	1200		325	1.0	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{v}1-C	Mx-1	T	E/MW,M	B,K	1550		330		E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{v}1-D	Mx-1	T	E/MW,M	B,K	1150		330		E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{o}4	Mx-1	PM	M	K	1330		335		E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{o}7	Mx-1	PM	M	K	1170		335	8.0	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{o}8	Mx-1	PM	M	K	1230		335	10.0	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{o}9	Mx-1	PM	M	K	1320		335	4.0	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{o}10	Mx-1	PM	M	K	1450		335	6.2	E	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{f}36-A	Mx-1	T	E/MW,M	B,K	1590		335		T	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{f}36-B	Mx-1	T	M	K	1590		335		T	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{f}36-C	Mx-1	T	M	K	1590		335		T	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{f}36-D	Mx-1	T	M	K	1590		335		T	NR	597	CBF	IAS,SIUM
25D3-03		Mx^{f}31	Mx-1	T	M	K	1590		340	1.0	E,T	NR	597	CBF	IAS,SIUM
25D3-03		Pp^{v}1-A	Pp-9	T	LW,M	L,K	1140		335		E	NR	597	CBF	IAS,SIUM
25D3-03		Pp^{o}2	Pp-9	EM	LW,M	L,K	1200		335	1.6	E	NR	597	CBF	IAS,SIUM
25D3-03		Pp^{o}3	Pp-9	PM	M	K	1200		335			NR	597	CBF	IAS,SIUM
25D3-03		Pp^{o}4	Pp-9	M	M	K	1200		335			NR	597	CBF	IAS,SIUM
25D3-03		Pp^{o}5	Pp-9	PM	M	K	1200		335			NR	597	CBF	IAS,SIUM
25D3-03		Pp^{o}6	Pp-9	PM	M	K	1200		335			NR	597	CBF	IAS,SIUM
25D3-03		Pp^{o}7	Pp-9	PM	M	K	1200		335			NR	597	CBF	IAS,SIUM

River Miles 928-933:

BB Mx-103															
1 VI 72					A	F	4400		325		SC		469	MW	SIUDA
BB Mx-106															
25 IV 70					A,E/MW,M	F,B,K	5950		325		SC	PE	469	MW	SIUDA
BB Mx-107															
10 IV 71					A,E/MW	F,B	4100		325		SC	PE	469	MW	SIUDA
BB Mx-108															
10 IV 71							3450		325		SC		693	MW	SIUDA

Appendix C (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	BB Mx-109 10 VI 71				A	F	3450		320		SC		693	MW	SIUDA
	BB Mx-109 10 IV 71				E/MW,LW	B,L	3450		320		SC		597	CBF	SIUDA
	BB Mx-130 28 VI 71-11				A	F	2340		320		SC		597	CBF	SIUDA
	BB Mx-110 10 IV 71				A	F	3850		325		SC		693	MW	SIUDA
	BB Mx-121 25 VI 71-1				E/MW,M	B,K	1200	30	320		SC		597	CBF	SIUDA
	BB Mx-122 28 VI 71-1				M	K	1720	20	330		SC		597	CBF	SIUDA
	BB Mx-123 28 VI 71-4				LW	L	1900		325		SC		469	MW	SIUDA
	BB Mx-124 28 VI 71-5				A	F	1380		325		SC		469	MW	SIUDA
	BB Mx-125 28 VI 71-6				E/MW	B	1780		330		SC		469	MW	SIUDA
	BB Mx-126 28 VI 71-7				A,LW	F,L	1960		325		SC		422	WW	SIUDA
	BB Mx-127 28 VI 71-8				A,E/MW	F,B	2000		325		SC	PE	597	CBF	SIUDA
	BB Mx-128 28 VI 71-9				LW	L	1930		330		SC			MW	SIUDA
24C4-48	BB Mx-113 15 VI 75-3	Mx^V23	Mx-59		LW	L	1600		330		SC		597	CBF	IAS,SIUDA
24C4-48	BB Mx-113 15 VI 73-4	Mx^V23	Mx-59	V	M	K	1610		330		SC		597	CBF	IAS,SIUDA
24C4-48	BB Mx-113 15 VI 73-5	Mx^V23	Mx-59	V	M	K	1520		330		SC	PE	597	CBF	IAS,SIUDA
24C4-48	BB MX-113 15 VI 73-6	Mx^V23	Mx-59	V	M	K	1520		330		SC	PE	597	CBF	IAS,SIUDA
24C4-48	BB Mx-113 15 VI 73-7	Mx^V23	Mx-59	V	M	K	1500		330		SC	PE	597	CBF	IAS,SIUDA
	BB Mx-170 20 VI 72-1				M	K	2800		320		SC	PE	469	MW	SIUDA
	BB Mx-171 20 VI 72-5						3230		330		SC	ID	693	MW	SIUDA
	BB Mx-172 20 V 72-7				E/MW	B	2970		320		SC	PE	469	MW	SIUDA
	BB Mx-173 20 V 72-8				A	F	3080		320		SC	PE	469	MW	SIUDA
	BB Mx-174 20 VI 72-9				E/MW	B	2900		320		SC	PE	469	MW	SIUDA
	BB Mx-175 20 V 72-10						2390		325		SC	ID	469	MW	SIUDA

Appendix C (continued)

Site Number SIUM#	SIUDA#	UC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M^2 in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	BB Mx-178														
	27 V 72-3						2620		320		SC	ID	469	MW	SIUDA
		Mx^V25	Mx-49	V			2700		395		SC	ID			IAS
	BB Mx-180														
	21 VI 72-10				M	K	3360		325		SC	PE	469	MW	SIUDA
	BB Mx-182														
	21 VI 72-14						4280		325		SC	ID			SIUDA
		Mx^V26	Mx-50		A,LW	K,L	2700		325		SC	PE	426	DS	IAS,SIUDA
	BB Mx-131														
	29 VI 71-1			V			2600		340		SC	ID	426	DS	SIUDA
River Miles 933-937:															
24C4-38			Mx-109	V	LW,M	L,K	1650		350		CSC,E	PE	131	POF	IAS,SIUM
	BB Mx-187														
	26 VI 72-12				A,W	F,B	1900		330		SC	PE	469	MW	SIUDA
	26 VI 72-13						2400		330		SC	ID	469	MW	SIUDA
	BB Mx-154														
	29 IV 72-1				A	F	2410		340		SC	E	461	POF	SIUDA
	BB Mx-155														
	29 VI 72-3				A,E/MW	F,B	2750		340		SC	E	462	POF	SIUDA
	BB Mx-156														
	29 VI 72-5				E/MW	B	3000		340		SC	PE	462	POF	SIUDA
	BB Mx-157														
	29 IV 72-6				E/MW	B	3050		350		SC	PE	462	POF	SIUDA
	BB Mx-158														
	29 IV 72-8				LW,M	L,K	3210		350		SC	PE	462	POF	SIUDA
	BB Mx-159														
	29 IV 72-9						3150		345		SC	ID	462	POF	SIUDA
	BB Mx-160														
	29 IV 72-10						2850		345		SC	ID	461	POF	SIUDA
	BB Mx-161														
	29 IV 72-11			C	LW,M	L,K	3100		345		SC	PE	462	POF	SIUDA
	BB Mx-162														
	29 IV 72-12				A	F	3050		345		SC	PE	462	POF	SIUDA
	BB Mx-163														
	29 IV 72-13						2800		345		SC	ID	462	POF	SIUDA
	BB Mx-164														
	29 IV 72-14			V	M	K	3050		348		SC	PE	462	MW	SIUDA
	BB Mx-165														
	29 IV 72-15				LW	L	3110		348		SC	PE	461	POF	SIUDA
	BB Mx-166														
	6 V 72-1				E/MW,LW,M	B,L,K	3400		348		SC	E	461	POF	SIUDA
	BB Mx-167														
25 C4-03	6 V 72-2		Mx-38		A,E/MW	F,B	3610		350		SC	PE	956	POF	IAS,SIUDA
		Mx^V42	Mx-39						325		SC	ID	462	POF	IAS

Appendix C (continued)

Site Number SIUM#	SIUDA#	PC#	IAS#	Type	Periods	Culture	Meters From Bank	Size M in 100's	Elev.	Depth	Cond.	Nat. Reg.	Soil	Veg.	Records
	BB Mx-101														
	IV 71				A	F			325		SC	PE	462	POF	SIUDA
	BB Mx-102														
	24 V 69				A	F	3,400		325		SC	PE	462	POF	SIUDA
	BB Mx-191														
	27 VI 72-1						2490		330		SC	ID	469	MW	SIUDA
	BB Mx-105			C			2050		330		SC	ID	469	MW	SIUDA
			Mx-30	V	E/MW	R	2000		330	1.6	E	E	469	MW	IAS
	BB Mx-133														
	29 VI 71-3			V	M	K	1300	40	325		SC	PE	597	CBF	SIUDA
	BB Mx-134														
	29 VI 71-4						1450		320		SC	ID	597	CBF	SIUDA
	BB Mx-135														
	29 VI 71-6			V	M	K	1350	40	320		SC	PE	597	CBF	SIUDA

River Miles 938-942: no other sites recorded in this section.

River Miles 943-947: no other sites recorded in this section.

River Miles 948-952: no other sites recorded in this section.

River Miles 953-957: no other sites recorded in this section.

River Miles 958-962:

25C3-04				C	A		1550	80	450		SC	PE	214	POF	SIUM

River Miles 963-967: no other sites recorded in this section.

River Miles 968-972: no other sites recorded in this section.

River Miles 973-977:

24D4-08			Ax-32	V	M		1300	60	310		SC	E	214	POF	SIUM

River Miles 978-982: no other sites recorded in this section.